

Alternative cost-cutting plan at NELP

by David Jobbins

An alternative cost-cutting plan for North East London Polytechnic which avoids enforced redundancies and retains the broad spectrum of courses offered has been put forward.

The proposals have been drawn up by the polytechnic's academic board in response to the development plan formulated by a government working party which calls for the closure of two faculties and a number of leading departments including applied economics, sociology, maths and humanities.

The development plan, approved by the governors' policy and resources committee by only seven votes to six, is to be voted on by the governors today.

Next week the joint education committee representing Barking, Newham and Waltham Forest boroughs, is to meet to make its final decision on the polytechnic's budget. The committee is likely to require a cut in the order of £3.6 million.

Opposition to the development plan has come from two standpoints. Campus unions are deeply concerned at the implications for jobs. They have also joined in the general chorus of opposition from educationists to proposals to close sociology, economics, maths and many humanities courses.

The closure of the department is top of the agenda at today's meeting of the London Mathematical Society.

MPs visiting NELP as part of the investigations of the Commons select committee investigation into financing of higher education courses did not have the opportunity to meet union representatives.

The academic board plan suggests a wide range of ways of cutting spending by £2.3m which will savings already made approximately. The demands being made by the local authorities. The principal points are:

- Reduction of the number of faculties from eight to five.
- Adoption of pooling committee norms for staff allocations.
- Maximization of student numbers.
- No course closure while resources are available to run them.
- Cut-backs in senior staff establishment and a reduction in the directorate which currently has 10 assistant directors.
- Rationalization of administration and central services.

The academic board working party warned against precipitate action such as redundancy notices and course closures.

PNL told: you may lose hall

The Polytechnic of North London has been warned that it risks losing one of its two halls of residence if it does not comply with the conditions of an anonymous gift for its construction.

The donor, thought by many to be the Queen Mother, insisted that the hall should provide meals for all residents and charge for them with the rent. But, although the hall has opened for a year, it has been run on a self-catering basis throughout the year it has been open.

Lord Murray, the donor's representative, visited the James Leicesters Hall last month and subsequently wrote to the polytechnic pointing out the conditions of the gift, which were intended to ensure that students mixed with others of different interests and backgrounds.

Now the polytechnic has set up a working party to investigate methods of complying with Lord Murray's request that catering will be provided by the beginning of the 1980-81 session. A spokesman said the requirements would be met and the university would visit the polytechnic again in three months time to monitor progress.

UGC and unions may clash over funding of nurseries

by Ngaio Creaquer

Vice-chancellors have raised with the University Grants Committee the first flaw in the new arrangements for student union financing; whether they will need to prevent students from spending money on nurseries.

From the academic year beginning 1981-2 student unions will be financed from UGC recurrent grants rather than indirectly by local authorities. Unions will be regarded as merely another facility provided for students in institutions of higher education.

Mr Mark Carlisle, Secretary of State for Education and Science, said specifically when he announced the new arrangements that it was expected that institutions would "continue to afford their unions freedom in the management of their affairs".

But before this was announced the UGC told universities that they must stop using their recurrent income to subsidise nurseries or creches. This policy, which was conceived in the context of existing arrangements for student union funding, has led to confusion about its interpretation.

Vice-chancellors under pressure from students who are concerned

that nurseries may be forced to close, have asked the UGC for clarification on the extent to which they may have to impose conditions on how unions should spend their money.

There are two schools of thought. One is that as student union money will emanate from the UGC, it cannot be spent on nurseries. The other is that it is up to the unions, as in the past, to decide what their own priorities are and that the UGC did not intend to lay down guidelines for the unions.

If the second alternative were valid, it would mean that universities could agree that student unions should take over the funding of nurseries, and this might save some from closure. The question brings into focus the potential problem of internal conflict between universities and unions which both sides foresee before the changes come into force.

The question could well come down to how much money will be included in the recurrent grant for student union purposes and how strictly the universities decide to allocate it. The greater the amount of money available, the easier spending priorities will be.

Student union protests against the

UGC directive continue. The University of London students union this week launched an appeal for funds to be able to continue its 25-place nursery. The nursery is anticipating a deficit of £7,000 by the end of this year.

The universities may find some relief in the views of the National Union of Students. Ms Fiona McTaggart, vice-president said: "When the announcement of the new system was made it was specified this would not mean any new controls. If so, that implies that UGC regulations governing nurseries would not be applicable to the students' union."

"But we have always held the view that students' unions should not try to run nurseries. This is because of financial unpredictability but also because within the institution, when discussion about the union grant came up, if the union was planning to spend money which the UGC would not allow, it would be difficult for the union to win the argument."

There would also be the problem that if the union took on a nursery and the financial situation became worse, it would find itself in the position of having to cut its own students off, she said.

Tory students to debate NUS membership

by Paul Flather

The Federation of Conservative Students, with 19,000 members, is bracing itself for a furious debate on its policy to stay "inside" the National Union of Students.

The debate has been fuelled by an article which appears today in *Now* magazine, written by Mr Young, one of the two main candidates for the presidency of the NUS. The article says that the NUS should be elected at next week's national conference at Loughborough.

Mr Young, arrested earlier this year at an unofficial youth camp in Poland, says in the article that he believes the NUS should be elected at next week's national conference at Loughborough.

He believes in voluntary membership of the NUS. But the book suggests that its main task is to ensure that we are not given that we are not powerful. She cites the use of the NUS executive, in conflict with the NUS, to ensure that we are not given that we are not powerful.

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Engineer to be OU's new vice-chancellor

by Charlotte Barry

The next vice-chancellor of the Open University will be Professor John Horlock, vice-chancellor of Salford University, it was announced today.

Professor Horlock, who is a distinguished engineer, will take up the post in January 1981, following the retirement of Lord Perry of Walton.

Reaching the pioneering spirit of the OU's first 10 years, Professor Horlock seems undaunted by the prospect of financial stringencies which threaten its further growth.

He admits a limited experience of adult education and teaching at a distance but says: "I have always admired what the Open University has done."

Professor Horlock shares with Lord Perry a deep commitment to continuing education, which is likely to be the Open University's major area of expansion in the next decade. He placed great emphasis on this as a member of the Pilkington committee of inquiry into the engineering profession.

"If the Open University could contribute to what we were looking for in the Pilkington committee, it would be very attractive indeed," he said.

Professor Horlock's other main field of interest is postgraduate education. He is keen to continue his research on turbomachinery aerodynamics and the thermodynamics of power plants, on which he has published several books and numerous technical papers. He is also a director of British Eagle Insurance and British Leyland Technology Ltd and chairman of the Aeronautical Research Council.

He said the committee, chaired by DfES assistant secretary Mr Stephen Jones, proposed a safety net to ensure that no individual authorities face a disproportionate rate burden as a result of a cut in their allocation.

The paper says: "We are convinced of the need to mitigate the most acute effects of changes in pooling mechanisms, both for authorities facing difficulties over their



Three-point plan to solve poly funding wrangle

by Peter David

A three-point plan for funding polytechnics and colleges in 1981-82, designed to avoid a repetition of the erratic cuts in this year's budgets, has been confidentially drawn up at the Department of Education and Science.

The three main elements of the plan are:

- A "safety net" to spread the effect of cuts in the advanced further education (AFE) pool, so that no local authority is faced with an unfair rate burden.
- Rolling funding, so that authorities which suffer excessive cuts one year can be compensated the next.
- The use of average unit costs to ensure that local authorities' higher education spending plans are fair and realistic.

The proposals were outlined at a joint committee meeting this week consisting of central and local government officials, teacher union representatives and polytechnic and college heads. They are described as the next best thing to a rational system based on educational judgments, which the committee believes cannot be devised in time for next year.

A document drawn up by the committee explains how the new system would work and contains the first official post-mortem on the Government's decision to limit in advance the size of the AFE pool, which is a share of the £400m spent annually on public sector higher education.

It says that the £41m shortfall in the pool this year, and the method used to distribute the cut to individual education authorities, resulted in a variety of "inequitable" situations.

These included some authorities receiving more money than they needed, while others suffered an "unacceptably large" loss equivalent to a 2p rate. Many authorities made substantial cuts in college budgets.

To avoid a recurrence of this in 1981-82, the committee, chaired by DfES assistant secretary Mr Stephen Jones, proposed a safety net to ensure that no individual authorities face a disproportionate rate burden as a result of a cut in their allocation.

The paper says: "We are convinced of the need to mitigate the most acute effects of changes in pooling mechanisms, both for authorities facing difficulties over their

rate precepts and for major maintained institutions providing AFE which clearly suffered sudden and largely unforeseen revenue budget cuts.

If it had been in operation this year, the paper says, nine authorities would have been caught by a safety net limiting losses to a 1p rate, an extra cost of £5m which would have had to be spread among the other authorities. The paper suggests that the final decision on where to fix the safety net be left for political decision. It suggests 1p, 0.5p or 0.25p.

To ensure that local authorities submit realistic estimates next year, the committee proposes that their bids should be compared with their average spending per student in previous years. Any increase in average costs would automatically be reduced. In addition, rolling year-by-year funding would be introduced to correct mistakes in the allocation of funds from the pool.

The committee believes that its package is the best solution for next year's funding. But it says that the three elements need not be introduced together.

The document adds: "A rational and equitable basis for the sorts of judgments needed is not yet available, nor will be for 1981-82. We present our report in the view that our proposals represent the next best thing—a considered, though as yet unfinished, reasonably equitable and defensible method for next year's allocations that will be susceptible to later corrections of claims that will limit unit cost movements, and thus will prevent massive changes in one year in any authority."

But the report is not unanimous, and the committee will hold more meetings before offering advice to ministers. A minority report by Mr Peter Flowerday, secretary of the Committee of Directors of Polytechnics, castigates it as "sophisticated marginal tinkering" with an outmoded financial system.

Advocating an end to local authority responsibility for higher education funding, Mr Flowerday's report contains scathing criticism of this year's handling of polytechnic spending by central and local government.

Spending cuts spare science but slash adult education

Public expenditure on higher and further education will fall by under 5 per cent over the next four years, about the same as all public expenditure but below the 9 per cent cut planned for education as a whole.

The latest White Paper on public expenditure shows that higher and further education's share of recurrent expenditure will fall from £1.755m (at last year's prices) in 1980-81 to £1.670m in 1983-84. Capital spending will be cut from £173m next year to £150m in 1983-84.

However, the outcome for higher education could be even bleaker than these figures suggest. Mr Carlisle, the Secretary of State for Education and Science, said that these figures allow for big savings on full cost fees for overseas students. If these students do not turn up in sufficient number, universities and polytechnics will suffer worse cuts.

The White Paper assumes that the total number of home students will remain constant—an assumption that is challenged by many

vice-chancellors—and that this will actually require a small drop because of the increasing size of past intakes.

Spending on adult education will be hit much harder. It is planned to reduce it by a third, or about £15m in a full year. However, the Government hopes that this saving will be achieved by higher fees and that the present total of two million adult students will not be reduced.

In contrast the science budget has escaped. Spending will fall from the current year's total of £308m to £302m next year but then rise to a new plateau of £310m for the remaining years covered by the White Paper.

On unit costs the White Paper says: "For home students the plans provide for a small reduction throughout the period in expenditure on institutions and student support, especially in the non-university sector."

The Government's Expenditure Plans 1980-81 to 1983-84, Cmd 7481, HMSO.

Carlisle hints at fees review if numbers fall

by John O'Leary

The Government will review its policy of introducing full-cost fees for overseas students if there is a dramatic fall in recruitment. Mr Carlisle, Secretary of State for Education, told MPs this week that £10m had been set aside for contingencies when the two levels were set, the hell out little hope for countries pleading special cases and he stressed that it would be for the University Grants Committee to make provision for saving courses considered of particular value to home students or for national provision.

He quoted the School of Oriental and African Studies as one example of an institution where special criteria might apply in the UGC's deliberations. But he stressed that in general those courses which

Belongs during the year 1977-78 he said.

Mr Carlisle was elusive on the question of possible measures to avert the harmful effects on recruitment. Although he revealed that £10m had been set aside for contingencies when the two levels were set, the hell out little hope for countries pleading special cases and he stressed that it would be for the University Grants Committee to make provision for saving courses considered of particular value to home students or for national provision.

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Working people poorly served by part-time courses, says TUC

The traditional pattern of higher education, with its emphasis on school leavers, has led to a gross neglect of the needs of working people for part-time courses, the Trade Union Congress told MPs this week.

Grants for part-time students should be considered immediately, TUC representatives told the Select Committee on Education, and in the long term a comprehensive system of adult educational leave, linked to mandatory grants, should be introduced.

Universities came in for particular criticism in the TUC submission. "Whereas the Open University has effectively combined home-based learning with short summer schools, there are few universities where part-time provision is given any priority whatsoever," it said, adding that Manchester, London and Glasgow's thriving extra-mural departments represented welcome exceptions to the rule.

Over the past 20 years, the proportion of part-time university undergraduates had fallen from 7.1 per cent to 1.67 per cent, the TUC pointed out. In 1976-77 only 3,812 part-timers were studying for first degrees and 15 universities had no part-timers at all.

The unions favoured the development of an overall policy for education, coordinating both sectors of higher education with non-advanced further education and the schools. At an institutional level, they wanted community involvement at every level of planning.

But Mr John Morton, general secretary of the Musicians' Union, said the TUC would not support a greater emphasis on the vocational element of higher education. It should be sufficiently broad to meet the educational needs of tomorrow, he said.

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Training cuts 'hit single A level girls'

by Charlotte Barry

The number of girls with one A level entering full-time higher or further education has plummeted as a result of the teacher training cuts and changes in the entry requirements.

This is the main finding of a report published today by the Equal Opportunities Commission on the effect of the teacher training cuts on women's opportunities.

It shows that during the 1970s the proportion of girl school-leavers with one A level going into full-time higher and further education fell by 24 per cent. By comparison, the proportion of boys in the same category fell by only 9 per cent.

This was the direct result of the teacher training cuts, the subsequent raising of entry qualifications and the failure of the Government to

provide suitable equivalent opportunities, the report says.

Those with one A level who would have entered teacher training were mostly women, and many were working class. They found they were excluded from alternatives that were mostly degree or other courses with two A level entry requirements.

Although Higher National Diploma courses for students with one A level were supported by mandatory grants after 1975 they were predominantly in scientific, engineering and technological subjects which require mathematics and science. These were subjects for which girls had been totally unprepared at school.

Social work courses were open only to older students, there were no courses in arts subjects and very few in languages at this level, and the few places available in the

visual arts, music and drama did not carry inadequate awards.

Ironically, the alternative courses set up for those with two A levels in universities, polytechnics and the new colleges of higher education drew away the better qualified students that teacher training sought to keep as part of the new national policy to upgrade the teaching profession.

The report recommends that the Government introduces a Dipe with one A level entry in arts and social sciences supported by a mandatory grant which could provide a ladder from this level to a degree.

The study, which was carried out by Ms Ann Bone while she was a research fellow in the centre for institutional studies at North East London Polytechnic, took a year and was backed by a £4,000 grant from the EOC.

Its findings confirm long-held

suspicions, and the commission will be demanding that the Government also review the grants system which it considers discriminatory.

"The mandatory grants list includes a lot of courses like HND that are predominantly patronized by men and similar courses patronized by women do not carry mandatory grants," said Mr Eric Robinson, the EOC's education commissioner and principal of Bradford College. "It means that men in higher education are better off than women."

He added: "The idea that numbers will even up in higher education over the next few years is not what we think is going to happen. We think women are going to continue to get a poorer share and nobody is doing very much to get that changed."

Sex and the single A level, page 8 leader, page 31

Staff unite for day of action

University unions are holding their own day of action against Government spending cuts on May 9-10 days before the TUC's own demonstrations.

The executive of the Association of University Teachers has called for campus meetings to discuss cuts and bring home the commitment the universities' work towards the country as a whole.

Union leaders are approaching other university unions, including the National Union of Students, at a national level to bring about action.

Support has already come from the Association of Scientific, Technical and Managerial Staff, which has however warned its members in the universities that cooperation with the AUT should not be regarded as an alternative to taking part in the TUC day of action on May 14.

The AUT is also mounting an exhibition of university research work as part of the TUC's April 29 festival on education and the arts.

Sixth forms 'need re-examination'

Education authorities should examine the effectiveness of their sixth forms and seriously consider arrangements with other schools or further education colleges, Mr Macfarlane, under secretary of state at the Department of Education and Science, said this week.

Addressing the Secondary Education Association's annual conference in Oxford, Mr Macfarlane stressed that there would always be a place for the traditional sixth form.

"No authority should reorganise its provision for this age group merely for the sake of change. But authorities have to attend to the urgent question of how to provide an effective service in the face of falling rolls," Mr Macfarlane said.

The alternative was to look at educational provision for this age group by offering more vocationally orientated subjects.

Bath goes ahead with expansion

Bath University, after a series of stops and starts, has finally begun the go-ahead for a new £750,000 building. It will house the school of modern languages, the school of education, and the centre for European industrial studies.

This will release space in the library and for the development of postgraduate work in chemistry, chemistry and the biological sciences.

In November 1978 the University Grants Committee dropped the project from its building programme. But in December 1979, when the government's decision to drop the project was dropped again, the building, which was expected to take 15 months

IUC's new director

Dr Alan Russell has been appointed director of the Inter-University Council for Higher Education (IUC). He is a successor to Mr Richard Giddings, who retired at the end of this month.

College signs lease

Chelsea College has now formally acquired the site of the Eltham College of St Mark and St John, which will enable it to consolidate its premises north of the river.

Opportunity course

New Opportunities for Women courses are run by the department of adult education at Newcastle University, not Newcastle Polytechnic as stated on page 8 of the Times on March 21.

Poles defend their ban on lecturer

by Olga Wojtas
Scottish Correspondent

The Polish authorities have defended their ban on a senior lecturer's return to Glasgow University, maintaining that his appointment was temporary, and that he has returned to fruitful employment at the Polish Academy of Sciences in Warsaw.

But Glasgow University has copies of Dr Leszek Kukulski's resignation from his Warsaw post and the Polish Academy's acceptance of this in 1967. And Dr Kukulski is reported in a Scottish paper as saying he has no employment in Poland.

He left Glasgow two years ago for a sabbatical in Poland, but says the authorities have now refused to renew his passport.

Polish embassy spokesman Mr Andrzej Konopinski said it was the understanding in Poland that Dr Kukulski had come to Glasgow to put a couple of years to help promote Polish studies. This had been extended on various occasions as Dr Kukulski said various projects had to be continued.

"At first people didn't mind but enough is enough," said Mr Konopinski. "In the meantime, the university had assumed he was a permanent member of staff, and perhaps he thought so, too."

But Mr Rod Lyall, president of the Association of University Teachers, who has written to the Polish authorities, said: "Perhaps the Poles genuinely don't understand the notion of academic tenure. They think this is a post they can fill with whoever they please, but this is a normal academic appointment."

But Mr Konopinski insisted Dr Kukulski was on an exchange. Hundreds of people were able to do his job, and to keep them in rotation merely for the sake of change. But authorities have to attend to the urgent question of how to provide an effective service in the face of falling rolls," Mr Macfarlane said.

The alternative was to look at educational provision for this age group by offering more vocationally orientated subjects.

Girls get an engineering insight

Girls studying maths and science at school are being given a preliminary chance to explore careers in engineering in an attempt to recruit more women to the industry.

Insight 80 is a one-week summer residential programme hosted by nine different British universities and sponsored by the Engineering Industry Training Board.

The 300 girls on the scheme will be provided with an opportunity to learn at first hand about the engineering profession, the industry and the higher education and training necessary to qualify as a professional engineer.

The girls on the programme, whose expenses will be paid except for travel, will learn at first hand about the kind of work involved in the various degree courses which form the essential foundation for the training of professional engineers.

They will meet practising engineers, both men and women, as well as university staff, and there will also be visits to companies to meet engineers in their working environment.

Agency wins battle for literacy unit

Nine thousand adults received tuition during the three-year life of the Scottish Adult Literacy Agency (SALA). In its newly published final report...

Universities received unfair advantage over fees, MPs told

by John O'Leary and Paul Flaherty

Universities have been given an unfair advantage over the public sector for higher education, pointing out that Balliol now expects a fall of 20 per cent in overseas applications and admissions.

Graduate and undergraduate admissions during the past Michaelmas Term have fallen from 42 to 29 compared with the same term last year, a drop of almost 30 per cent.

Dr Kenny, who is also Chairman of the Conference of Colleges of Oxford University, says that British universities are pricing themselves out of the market.

He said a dozen overseas students can provide a leaven of variety and maturity to a Junior Common Room," he says. Oxford colleges would suffer a net loss of fees because they are not allowed to take on more British students, but the effect would be "marginal".

Dr Kenny says he welcomes the Government's decision to allow universities to submit evidence on the effect of the policy for 1980-81, before fixing the level for future years.

The Methodist Church has also added its voice to the growing opposition to overseas students fees. The Church's Division of Education and Youth says the policy goes against the continuing need for the ability to students from poorer countries.

In the long run, it says, it will be dangerous for future peace, unity and prosperity if overseas students are forced to study in social systems whose values are alien to the British way of life."

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College signs lease

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Opportunity course

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Dr Anthony Kenny: a warning to the Government

fees does effectively eliminate the intake of overseas students into polytechnics and other higher education institutions, then that process will be irreversible. Once these students have found other sources of higher education, and the evidence is that that is what is happening, then we must assume that these students will be lost to Britain for all time."

The introduction by the Department of Education and Science of the postgraduate scholarship scheme for universities but not for polytechnics is bound to affect unnecessarily the image which the latter institutions have outside the United Kingdom."

Both the APT and the Association of University Teachers, which has also made a submission to the subcommittee, believe the fee increase will have a drastic effect on the number of overseas students coming to Britain. The two unions agree that the greatest damage will be inflicted on the poorest nations.

The APT also warns: "If we are right, and the increase to full cost

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Colleges asked to aid Schools Council plan

Higher education institutions are being asked to help the Schools Council plan to develop a national network aimed at solving many of the problems facing primary and secondary schools.

Universities, polytechnics and colleges have already been told of four new programmes of work that the council is launching next month at a cost of £1.3m over a period of two years. These cover school organization, teaching skills and effectiveness, the curriculum and individual pupils. A fifth programme on examination reform is being considered separately by the council's examination committee.

In addition a research team has been visiting universities and other institutions, including teacher training colleges, to discuss areas of collaboration between higher education and the council.

The team's main interest is to see what kind of small scale research activity could be undertaken by polytechnics and universities covering the problems at work, and the way staff in higher education institutions could help teacher groups in action research and curriculum development. It is also examining the way HIs institutions could contribute as consultants to networks of teachers in sectors where they have expertise.

The research team is particularly interested in universities because of the major work they carry out in the in-service training of teachers. It believes this is an effective way by which the council could develop closer involvement with what teachers are doing and relate these activities to its own work.

This council hopes that a major area where higher education institutions could help is in the field of assessment to develop teachers' abilities to use diagnostic assessment and work on profile reporting and the development of mastery tests.

This is a particularly difficult area, the second programme on teaching skills and effectiveness will involve during the next year. It is designed to be responsive to colleges or individual teachers requests for funding to carry out projects leading to an end but which could profit from more work such as self evaluation and from a written report of its findings.

Its second emphasis is to initiate projects of its own with the support of local education authorities and higher education institutions such as on teacher pupil interaction research, provided this has the agreement of a monitoring group within the programme.

Speaking about the council's new plans, John Mann, secretary of the Schools Council said: "What is implicit is that the council is moving from the research development dissemination mode to a model which involves partnership giving them support, writing up their findings, and disseminating those widely."

Scotland to host handicapped AGM

Mr James Allen, director of the National Bureau for Handicapped Students, visited Scotland this week and had discussions with Dr John Jackson, the bureau's Scottish regional organizer, and a lecturer at Strathclyde University.

The bureau has decided that Scotland's progress is so outstanding in this field that the next annual general meeting will be held in Edinburgh, the first time it has been held outside London.

"There has been advanced thinking backed by money in Scotland," said Dr Jackson.

New University of Ulster

The New University of Ulster at Coleraine was omitted from the list of higher education institutions in the Province offering courses leading to a professional teaching qualification given in an article printed in the TIMES on March 1.

In fact Coleraine offers a variety of courses leading to a three- or four-year BA or BSc in education, four-year single and combined honours degrees in education and a wide range of postgraduate degree courses including both an honours degree in an academic teaching subject and a professional teaching qualification.

Recognition for APT

The Association of Polytechnic Teachers has been recognized for consultation on a wide range of issues affecting its members, at Thomas Polytechnic.

But polytechnic governors have decided against arrangements which would allow formal agreements to be reached with APT.

They emphasized that the National Association of Teachers is not a Higher Education remains the sole union recognized for collective bargaining, but promised to review the position if the Burnham further education committee or the national joint council on conditions were constituted to include APT.

A resolution passed by governors is intended to ensure APT, which has a significant number of polytechnic staff in membership, is not excluded from consulting with the director or his senior colleagues on matters of interest to its members.

APT, which represents only polytechnic staff, is located in a recognition battle with the 70,000-strong NATFHE, which represents all college lecturers.

Overseas News Campus open again after clashes

from Hasan Akhtar

ISLAMABAD The Quaid-e-Azam University at Islamabad has reopened after being closed for 79 days. The university was ordered to be closed on December 18 following violent clashes between groups of students who used revolvers and knives, resulting in injuries to a number of them.

Right-wing students were blamed for stirring the trouble. The privileged closure has resulted in loss of one semester to the students and unless the university administration curtails next summer's three-month vacation, the students may have to put in three extra months to complete their courses of studies.

Meanwhile there are strong reports that the chancellor of the university, General Zia ul-Haq, president and chief martial law administrator, has decided that the university should be restructured to revert to its original charter of specialized education. The current MSC classes in natural and social sciences are expected to be discontinued under a phased programme.

The Quaid-e-Azam University is not the only one which is facing uncertain academic future. The Karachi University, regarded as the second largest in the country, after the Punjab University, is said to be seriously considering abolishing the present semester system and returning to the conventional system of education and examination.

The academic council of the Karachi University is said to be waiting for a report of its committee on the issue. According to general view in the academic council, the semester system introduced only a few years ago, had failed to deliver the goods.

It is being said that the university failed to report the committee because of shortage of funds resulting in inadequate teaching aids and prolonged forced closure which disrupted the teaching.

The University at Multan, Central Punjab, is also subject of debate in Pakistani press. There is a strong controversy over the education in the university in this orthodox city of Punjab and many newspapers demanded exclusion of girl students from the university.

The Multan University administration is also debating whether to continue the present semester system which is apparently suffering from the same problems which are faced by the Karachi University.

Education experts appear to hold the view that education system in Pakistan since independence has been subjected to frequent changes, quite often for political rather than educational reasons. A leading newspaper commented: "The more an educational system is made to change, the more it remains the same."

It is recognized that education in Pakistan never received either the attention or financial support that it deserved from successive governments.

Rectors call for single repeat exam

from Mario Modiano
ATHENS

The committee of rectors of the 13 universities and graduate schools in Greece, entrusted by the Government to recommend a solution to the problem of examinations which led to a serious confrontation with students last December, has now submitted its report.

The committee proposes that there should be only one, instead of two repeat examinations for students failing in the year-end tests every June, but that they should also be able to transfer subjects in which they failed to the following year, so they would be given four chances to pass within two consecutive years. In graduation examinations two repetitions would be allowed, one in October and one in December.

It was thanks to the personal intervention of Mr. Karamanlis, the Greek Prime Minister, that a major crisis was averted in December. The Prime Minister suspended the controversial Law 815 and asked the committee of Rectors to work out an acceptable alternative, in consultation with the student leaders, and report by mid-March.

The problem emerged when the Greek government decided to take drastic action to upgrade Greek university diplomas which have fallen into academic disrepute in Europe, both because of the quality of instruction and the facilities afforded even to unqualified students to graduate.

Law 815 abolished the privilege of repeating year-end examinations twice in case of failure, in October and December, and prohibited the transfer of an unlimited number of subjects from one year's examinations to the next. Finally, "perennial" students were to be ousted if unable to graduate in one and a half times as many years as were ordinarily required.

The students reacted against Law 815, arguing that it claimed too high standards that were not compatible with the shortage of teachers and the inadequacy of the infrastructure in Greek universities. When the ministry of education insisted, the students staged boycotts and later occupied the premises in all universities.

The committee of rectors is now proposing that besides the year-end examination in June, there should be only one repeat examination in October, and in the case of graduating students only, also one in December. However, those students who fail in subjects may transfer them to the following year. In the fourth attempt, any student suspecting discrimination may ask to be examined by a special committee of three professors appointed by the university senate. "Perennial" students, the rectors urged, should not be deprived of their student status, but this will only give them the right to participate in graduation examinations.

The rectors approved the proposal by 10 votes to three—the minority filed a report agreeing largely with the student representatives who had walked out of the deliberations. They argued that the problem of examinations could not be divorced from the overall need for university reform.

The student leaders deplored the problem should be approached in the context of the comprehensive legislation covering all higher education the government has commissioned the same committee to draft. Until then the privilege of a state of affairs existing prior to Law 815 should be enforced.

The president of the rectors' committee, Professor Phokas, said Athens University, said universities and graduate schools would be allowed great flexibility in applying this to the basic principles of two examinations. Transfer of subjects only to the following year, and no expulsion for students are taking their time in obtaining degrees.

How the students will react to these recommendations, is too early to say. Following the student elections on March 5, the tenth student congress has been meeting in Athens this week to elect the new leadership of the national student union, and lay down basic policies and he was confident he could count on this to the student congress.

Professor Mitsis pointed out that this was the first time the government has given carte blanche to the universities to work out the problems with the student, and he was confident he could count on this to the student congress.

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Militant group forces college head to quit

by Guy Neave

Following a bitter conflict between the University Council and members of an activist group calling itself *Gardemur Vincennes*, M. Pierre Merlin, president of the University of Vincennes, Paris, has resigned.

The militants, drawn from members of the *syndicat national de l'Enseignement superieur* and the *syndicat national de l'Education nationale* have been pressing M. Merlin to justify his crackdown on campus drug dealers and his expulsion of students being forged documents to gain places in the university.

At the height of the battle, M. Merlin's office was besieged for 15 hours in an attempt to force him to meet their demands. As a result 29 members of the university council have resigned in protest out of a total of 51.

In tendering his resignation, M. Merlin told the Minister of Higher Education, Mrs. Alice Sapich, that he was prepared to assume interim powers until a new president was elected. The earliest this can be done is by the end of April. The Minister did not accept this proposal. "Giving her powers back to the Minister of Education is a step which has replaced him with an interior government administrator."

Reaction to this move has been varied. Representatives of the Communist students at Vincennes condemned it and called for elections to be held as soon as possible. By contrast the liberal students collective, politically very close to the Government, suggested the university be closed down. Spokesmen for the French Socialist Party called upon both M. Merlin and the university council to withdraw their resignations.

The issue is complicated further by the transfer of Vincennes to a rather more limited site in the north of Paris at St Denis. This is due to take place next October. Many staff and students fear that the move is merely a hidden attempt by the Minister of Higher Education to put an end to the innovative nature of the university.

Mme Sapich's office has grave misgivings about the credibility of Vincennes both on educational and political grounds. It is particularly significant that the orientation law has been used to reinforce the control of the Ministry of Higher Education over one of the more troublesome universities in the French university world. Set up in 1969, the law was originally intended to guarantee the university a certain autonomy and the participation of its members in the running.

A rapid replacement of M. Merlin by an interim administrator is less significant than the fact that university circles close to the Government are now talking of fundamental revisions to the orientation law. This is the most important law that involves the electoral system for the post of university president.

Previously, university presidents were elected by both professors and students and non-teaching personnel. At recent conferences at Rheims suggestions were made to curtail the electorate by removing both students and non-teaching personnel. Justifying this, it was pointed out at Rheims that student participation in elections has often automatically ended the last few years.

Already the issue of presidential elections in the universities has been rejected in the National Assembly. M. Merlin's resignation brings into sharp relief the fundamental issue of whether it is not time drastically to alter the orientation law of 1968.

University vice-chancellor and former Auckland professor Dr. Don Lee has claimed that the article contained factual errors and distorted claims or implications of regulations of insubordination of students. He asked for the long supervision by the expert panel to investigate the alleged links and the claim that university authorities had been involved in a cover-up.

It will have an initial intake of 300 full-time students, building on the 100 in three years time eventually to 5,000 full-time students. The Institute will have five faculties—administration, business and professional studies, science and paramedical studies, design, education and human studies.

Each faculty will be subdivided into a number of schools. A school will contain a number of related disciplines in general content of traditional monodisciplinary traditions. Institute director, Dr. David O'Hare says they have adapted the campus or even worse material, and encouraged by the approach to the maximum flexibility and mobility in courses to ensure they meet the real needs of industry.

Inquiry over lab deaths

from Lindsay Wright
WELLINGTON

Claims by a Waikato University senior lecturer, Dr. Gordon Rigg, that the deaths of at least four former students may be linked with the University's biology isotope laboratory, have led to the setting up by the New Zealand Minister of Health of a four-man expert panel to investigate the alleged deaths.

The claim that at least four, and possibly up to seven, students had died of cancer, possibly caused at the University, was made in a student newspaper *News* in its last issue. The article, which questioned the safety of the isotope laboratory, alleged that established safety procedures were violated and suggested that malignant cells as pipettes used in experiments involving radio-active substances were sometimes neither properly sealed in airtight disposable containers.

Nexus says that an isotope laboratory was initially shared by biology and chemistry departments, but that the biology department was later moved to a separate building. At recent conferences at Rheims suggestions were made to curtail the electorate by removing both students and non-teaching personnel. Justifying this, it was pointed out at Rheims that student participation in elections has often automatically ended the last few years.

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Count regrets state's appeal in 'obituary' case

by Gunther Kloss

Almost three years after the event, the Supreme Federal Court of the Federal Republic of Germany has at last spoken the final word on the episode of the mysterious obituary in a Göttingen student newspaper after the murder of the then Federal public prosecutor Herr Siegfried Bockack by Left-wing extremists in 1972.

The author of the article, whose identity was never discovered, defended the use of violence in the fight against a repressive political system. While basically coming out against political murder, the obituary also contained a number of inflammatory and disparaging remarks on the murdered Herr Bockack.

The obituary quickly gained notoriety. It was reprinted by other student publications and parts of it were widely quoted, initially out of context, in the German press. This led to a quick and determined reaction by the education authorities in several Länder. They started legal and disciplinary proceedings against students and staff who had either directly supported the obituary or had published it like a group of professors (all civil servants) from various universities—the obituary in full, without making their own views clear.

They had felt strongly that the obituary had condemned the author out of hand, without entering into a proper and full discussion of the deeper problems raised by the article.

The matter of a facilities article that had been elevated to a major affair, involving a freedom of expression of opinion in a democratic society. It was seen as a sensitive and explosive issue at a time when the entire country was obsessed with the fear of a resurgence of terrorism, for which chiefly Left-wing students were held responsible.

Most politicians condemned the author and his supporters. Only a few, like the Berlin Minister of Higher Education, were prepared to attempt a real dialogue. Several university teachers were suspended for a period, and a whole series of trials took place. Their outcome, ranging from acquittals to fines, and even illustrations of imprisonment, merely illustrated the widespread uncertainty and atmosphere of near-paranoia.

Now the Supreme Federal Court has rejected the appeal by the public prosecutor against a decision of a lower court in Oldenburg, which had acquitted 15 professors from Lower Saxony who had been co-editors of the reprint of the Bockack obituary.

The court's decision is a significant victory for the academic community. It suggests that the state's attempt to suppress dissent and control the press was unsuccessful. The court's decision is a significant victory for the academic community. It suggests that the state's attempt to suppress dissent and control the press was unsuccessful.

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How Deng's fourth modernization endures its spartan quarters

China's 636 universities and colleges today are in the midst of a restoration of high but conventional standards that leaves little room for radicalism; and a revolution to prevent the growth of a new middle class and ended in indiscriminate demoralization, bullying, looting and murder.

But they are not on the brink of a Chinese Thermidor, however comforting that interpretation may be to observers in the West. The grasp of the concept of averages and decimals and their ability to work them out correctly seemed much greater.

Second, Chinese higher education is super-selective. In all China there are only 1,020,000 university and college students, less than twice the British total although its population is 20 times as great. Mr Jiang Naixian, the Minister of Education, told us that China had only nine students per 10,000 of the population, compared with more than 100 in Britain and 350 per 10,000 in the United States.

Last year 4,700,000 school leavers took the national university entrance examination, but only 275,000 were admitted. With a primary and secondary school population of over 200 million and single year cohorts of more than 30 million, this means that China has an age participation rate of just over half of 1 per cent.

Of course, there are important regional variations. In Shanghai, China's largest and most sophisticated city, 14,000 of the 140,000 middle (secondary) school leavers last year went on to higher education, so giving a participation rate not much different from Britain's. In contrast in Sichuan, China's largest province and mainly an agricultural area, only 18,000 students were enrolled in universities and colleges; 200,000 had applied and half a million had successfully completed middle school. This last figure represents less than 20 per cent of the relevant age group of about three million.

Sichuan by Chinese standards is a rich province. There are many poor, especially in the north-west and in those areas like Tibet and Shikang which have been the theatre of the greatest division in education as in so many other aspects of Chinese life, is between the 20 per cent who live in cities and the 80 per cent who live on the land.

Indeed there has perhaps been an over-reaction to the excesses of the years between 1966 and 1977. Certainly the swing back to standards and traditional standards into the bargain has been very strong. Chinese higher education and Chinese intellectuals appear to have more than enough of radicalism. The rampant destruction of academic leaders has been deeply marked by their experience of the Cultural Revolution.

To these two qualities, elitism and conservatism, it is necessary to add a third, austerity. Chinese higher education survives on a very tight budget. The government conditions which a European or North American finds difficult to conceive. Students live in a room, sleeping in bunks draped with dry clothes. Many students with no money have no books. Some have no water. Libraries have few modern books and their shelves are filled with rows of textbooks. Their filing and retrieval systems are primitive in the extreme.

Laboratories have peeling walls and are filled with out-of-date equipment. Computers are at least ten years behind the latest models in America, Europe or Japan. Foreign exchange is so scarce that the few pieces of up-to-date equipment are treasured. Teaching groups are large, in spite of an apparently favourable staff/student ratio in many universities. Staff ways and corridors are badly in need of decoration. Buildings are cold and damp.

But it seems wrong to dwell for too long on these low material standards. The Chinese often seem proud that their higher education is not so filthy. Even when they are they use this terrifying scarcity of resources to justify the designation of "key" universities, where standards can be a little higher.

In any case low material standards have not led to low academic standards in China. In fact, academic standards seem to be remarkably high. There are three main reasons for this. First, school education seems to provide a very firm foundation for higher education. Although schools suffer from the same or even worse material deprivation and although by the standards of the approach to the maximum flexibility and mobility in courses to ensure they meet the real needs of industry.

Admittedly Chinese students can be younger than their British counterparts as middle school ends at 15. But in practice pupils have to repeat years in school, and many aspirants to higher education have to take the entrance examinations more than once. Also there is still a residue of older students whose education was interrupted by the turmoil of the Cultural Revolution. So the average age of students appears to be fairly similar.

In any case Chinese students are trained in a highly disciplined secondary school system and have to endure much more of a "key" university education than their British counterparts. The result is that their initial academic standard is high. Once they enter university or college they have to work very hard. They often spend five or six hours a day at preparation and the rest of their time is spent in private study. They have neither the money, the inclination nor perhaps the imagination to indulge in much idleness.

Mr Jiang explained that in the Cultural Revolution students were encouraged to be "red" and to band in their examinations. Now they are encouraged to be "white" and to band in their examinations. Now they are encouraged to be "white" and to band in their examinations. Now they are encouraged to be "white" and to band in their examinations.

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and passive, their results are astonishingly good. Nearly all the students in the Cultural Revolution of 1966-72, that began as an attempt to prevent the growth of a new middle class and ended in indiscriminate demoralization, bullying, looting and murder.

But they are not on the brink of a Chinese Thermidor, however comforting that interpretation may be to observers in the West. The grasp of the concept of averages and decimals and their ability to work them out correctly seemed much greater.

Second, Chinese higher education is super-selective. In all China there are only 1,020,000 university and college students, less than twice the British total although its population is 20 times as great. Mr Jiang Naixian, the Minister of Education, told us that China had only nine students per 10,000 of the population, compared with more than 100 in Britain and 350 per 10,000 in the United States.

Last year 4,700,000 school leavers took the national university entrance examination, but only 275,000 were admitted. With a primary and secondary school population of over 200 million and single year cohorts of more than 30 million, this means that China has an age participation rate of just over half of 1 per cent.

Of course, there are important regional variations. In Shanghai, China's largest and most sophisticated city, 14,000 of the 140,000 middle (secondary) school leavers last year went on to higher education, so giving a participation rate not much different from Britain's. In contrast in Sichuan, China's largest province and mainly an agricultural area, only 18,000 students were enrolled in universities and colleges; 200,000 had applied and half a million had successfully completed middle school. This last figure represents less than 20 per cent of the relevant age group of about three million.

Sichuan by Chinese standards is a rich province. There are many poor, especially in the north-west and in those areas like Tibet and Shikang which have been the theatre of the greatest division in education as in so many other aspects of Chinese life, is between the 20 per cent who live in cities and the 80 per cent who live on the land.

Indeed there has perhaps been an over-reaction to the excesses of the years between 1966 and 1977. Certainly the swing back to standards and traditional standards into the bargain has been very strong. Chinese higher education and Chinese intellectuals appear to have more than enough of radicalism. The rampant destruction of academic leaders has been deeply marked by their experience of the Cultural Revolution.

To these two qualities, elitism and conservatism, it is necessary to add a third, austerity. Chinese higher education survives on a very tight budget. The government conditions which a European or North American finds difficult to conceive. Students live in a room, sleeping in bunks draped with dry clothes. Many students with no money have no books. Some have no water. Libraries have few modern books and their shelves are filled with rows of textbooks. Their filing and retrieval systems are primitive in the extreme.

Laboratories have peeling walls and are filled with out-of-date equipment. Computers are at least ten years behind the latest models in America, Europe or Japan. Foreign exchange is so scarce that the few pieces of up-to-date equipment are treasured. Teaching groups are large, in spite of an apparently favourable staff/student ratio in many universities. Staff ways and corridors are badly in need of decoration. Buildings are cold and damp.

But it seems wrong to dwell for too long on these low material standards. The Chinese often seem proud that their higher education is not so filthy. Even when they are they use this terrifying scarcity of resources to justify the designation of "key" universities, where standards can be a little higher.

In any case low material standards have not led to low academic standards in China. In fact, academic standards seem to be remarkably high. There are three main reasons for this. First, school education seems to provide a very firm foundation for higher education. Although schools suffer from the same or even worse material deprivation and although by the standards of the approach to the maximum flexibility and mobility in courses to ensure they meet the real needs of industry.

Admittedly Chinese students can be younger than their British counterparts as middle school ends at 15. But in practice pupils have to repeat years in school, and many aspirants to higher education have to take the entrance examinations more than once. Also there is still a residue of older students whose education was interrupted by the turmoil of the Cultural Revolution. So the average age of students appears to be fairly similar.

In any case Chinese students are trained in a highly disciplined secondary school system and have to endure much more of a "key" university education than their British counterparts. The result is that their initial academic standard is high. Once they enter university or college they have to work very hard. They often spend five or six hours a day at preparation and the rest of their time is spent in private study. They have neither the money, the inclination nor perhaps the imagination to indulge in much idleness.

Mr Jiang explained that in the Cultural Revolution students were encouraged to be "red" and to band in their examinations. Now they are encouraged to be "white" and to band in their examinations. Now they are encouraged to be "white" and to band in their examinations. Now they are encouraged to be "white" and to band in their examinations.

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In the first of his series

of articles on higher

education in China,

Peter Scott finds a

generation of intellectuals

who have little time for

the old radicalism

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Cultural Revolution. Liu Shaoqi, only recently rehabilitated (and quite deliberately quoted as an authority by Mr Jiang in our interview), was the most influential "key" universities were designated during the 1950s.

The second period was the Cultural Revolution which started in 1966 and gradually petered out in the early 1970s. Institutions were closed, their staffs dispersed, teaching, research and research hibernated. The Cultural Revolution has had two abiding consequences for Chinese higher education. First, it has made intellectuals deeply distrustful of populism and technical papers or in a few cases been reass

The National Union of Students with up to 230,000 members in public sector colleges who will be affected by the new procedure are currently discussing the proposal internally and with the CNA.

Iran has an ancient culture. During Europe's dark ages Iran was a center of intellectual, philosophical and scientific activity. Distinguished Muslim thinkers and scientists flourished; Socrates, Aristotle, Razi, Ghazali, Korynzi, Jamali, Khabazi, Ptolemy, Saadi, Naser Khasani, Rumi, Hafiz, Farsi's cultural influence was widespread among Asian countries. In India for example, Persia was an official language until the eighteenth century. The Purple the later centuries inspiration flagged. An increasingly suppressive monarchy

It is better than singing at court,"
Eshag was murdered in 1925.
Mossaddegh, a religious and radical
leader, in 1937, Tighi Azami, a
scientist, died in prison in 1940.
The nationalization of the oil
industry by Mossaddegh in 1957 was
designed to provide the country with
the economic resources needed for
such social reforms as mass education
and the development of higher
education. There was a resurgence
of national pride. All hope of pro-
gressive legislation was not lost.

It is not a gross exaggeration to compute the academic and intellectual repression in Iran between 1953 and 1978 with that in Nazi Germany or Franco's Spain. The Savak took control of the judiciary, the police and all educational institutions. Employment in either the public or private sectors of education was impossible without vetting and approval by it. This was a lengthy and slow procedure. Payment of salaries was withheld until

1968 and I was at first temporarily employed in Ahwaz University. Then he was moved to Isfahan, Urmieh and Tabriz all within a space of five years. "I was shifted by the Savak," he writes. "This kind of pressure destroys one's academic enthusiasm and creativity... I was always anxious about my future... In Ahwaz I was not paid for six months... Eventually I approached the principal, who said I had to be interviewed by the Savak. I was interrogated once a week for

In his letter, Professor Aryan complained that throughout the period of blatant harassment one higher official intervened on his behalf. He was not complaining for himself, "for the problem is not mine alone. It is rather the problem of our academic life in general, of the entire educational system and, indeed, society as a whole."

These whose profession it is to report the world play a unique role in creating its realities but are so fastidiously conscious of their social collection into their own routines of fact "minerals" and into the sense of the novel and the story that they lose touch of their audiences, that they are not really free agents in the sense that their accusers have imagined. So long as the prejudices of the Western audience remain the major paying audience for the whole machine of international information and entertainment, then the assumptions of those audiences will remain intellectually dominant.

They may like the reporting of truth, they may like the cracking of the Shah's response, but they do not want to know what he has said or how he has said it. They will believe anything that comes from the mouth of a man who is called a leader.

who cover India's disasters, electoral conflicts, problems of "public and social" life. India has doubled its radio production to 100,000 hours a week, the eighth largest industrial country in the world with the third largest pool of technically trained manpower. That suggests a different picture from the one normally painted in the radio, television and print journals of the Western agencies and their correspondents, journalists who come from the Third World but have no more willing in-

The author is director of the
Ffilm Institute and the
Cymdeithas yr Iaith Gymraeg.
Western Media and the Third World
which is to be published by P
and Faber in May.

When the courtroom becomes a classroom

Walking down the corridor of the District of Columbia courthouse in Washington was, for a lawyer, like a trip through a sweet factory for a seven-year-old. Look left, a door labelled Family, right, small Claims, left, Landlord and Tenant, right again Criminal Arraignments. One could taste at leisure and gain comparative experience over many fields in a few yards.

On a recent stay I visited the criminal court first where arraignments were taking place. These are hearings within 24 hours of arrest to take a preliminary plea, arrange bail and date of trial. The defendant I saw was a black transvestite charged with "soliciting for a lewd and immoral purpose". Here was the first surprise. Addressing the court was a law student wearing a supervising teacher discreetly a yard behind.

This was a non-controversial hearing but the student would now represent this client through all the succeeding stages of the case. By doing this work and earning the fulfilling course requirement for this University of Georgetown law school's clinical programme.

The idea of educating on the job is common enough in medicine and architecture. In Britain but the extension to law is, with honourable exception, unique. (This is of course, if we ignore the fact that the Inns of Court were founded on clinical theory.) Having been involved in a law clinic attached to a law school, I was still unprepared for the extent to which clinical legal education has been taken in America and even more surprised by the extent to which the legal institutions themselves facilitated the enterprise.

What does participation in the criminal justice clinic at Georgetown involve? One morning the student interviews the clerk in charge of arraignments at the court who automatically assigns him to a client being held there. The client can refuse this assistance, but if he accepts then the student interviews the clerk, represents him at arraignment and, if possible, gets him released pending trial. At that point the student-lawyer starts preparing a case for court, investigating the facts, researching the legal and procedural issues and preparing a defence. If the client wishes to plead guilty, then this might involve negotiation with the Federal District Attorney's department which handles the prosecutions. If the plea was not guilty, then the student tries the case, examining the witnesses and addressing the court.

The benefits for the student are many among them were obviously the interest and excitement of being actively involved in the justice system. But also there is the possibility that such supervision may turn him into a more competent lawyer. More important from

Initiatives in legal education are overdue, says Steve Uglow, who has been looking at American law students on-the-job training

the educator's point of view is the fact that such involvement deepens his knowledge about the area in a way that information gathered from books can never do and finally it can sharpen his theoretical understanding of how this abstract "theoretical" functions in a modern society.

The benefits for the client of having an inexperienced youngster as his mouthpiece might seem less obvious but in fact the commitment and dedication of the student more than make up for this, as they are able to devote much more time to the case than is economically feasible for any other lawyer. Students also avoid the overwork of the Public Defenders' Office as well as the institutional independence that often exists between the student and the district attorney, an independence that often works to the disadvantage of the client in, for example, the pressure to plead guilty, in return for benefits such as a lesser sentence.

For most defendants it is Hobson's choice between expensive representation or no representation

This is not meant as a paean of praise for American justice. The defects of the system are there for all to see. British justice is little better, but preserves its face through lower visibility. Representation, especially in minor matters, remains a problem. In the English system, the defendant is extremely unlikely to be represented or, if represented, the representation would be of a very high quality.

Certainly the use of law students could prove helpful to relieve this sort of pressure. Provided that the educational purpose of the exercise is retained it can also enhance legal education. But to what extent do the legal institutions of this country facilitate this development? The lower courts, magistrates' courts, have a statutory discretion as to whether or not to allow non-qualified representation. Despite this the incidence of "lay" advocates is limited.

For most defendants and litigants it is Hobson's choice between expensive representation or no representation whatsoever. For many lawyers the areas of bail, summary trial, juveniles, etc., generate little income and are seen as having little importance. There is a significant difference between the Americans and ourselves in that they consider that the due process clause of their constitution applies to all forms of judicial proceedings. It is in this context of the greater sensitivity of the Americans not merely to the rhetoric of procedural justice, but to its substance that the clinical programmes are nurtured.

An example of the strengths of this approach is the juvenile law clinic at the University of Maryland. In England representation of the juvenile defendant is rare, indeed, the procedural rules which would apply to adult courts are often ignored.

The juvenile clinic is not however seen as providing a community service, incidentally, in the primary manner in which it is seen. The number of cases at any time is restricted. It is the student who is responsible to his client and although all the skills that he will be using, whether writing, negotiating, interviewing, counselling will be used, the supervision is not in the front line in the relationship with either the client or the court.

The supervision is in fact intensive. I saw the preparation of a case in which the student would be examining a probation officer in court. Now, as a student, I would have been asked to prepare a case, possibly with more mature and confident students. There is greater student pressure after five or six years of higher education to be actively involved. There are also much closer links between the local profession and the professors on the faculty.

Despite these factors it is still remarkable that so few moves towards clinical education have been made. Is this to do with the English law schools' vision of themselves as providing a liberal education within the ethos of a university, leaving the "vocational" stages to the profession? Unfortunately it is not at all clear that this distinction between "academic" and "vocational" holds up when legal education in

looked like good service.

The extent and variety of clinical programmes in America is extraordinary. Canada and Australia show the same type of development. Of the common law countries, only the United Kingdom shows few signs of change. Of course there are major differences between here and America. Firstly, there is the traditional control over legal education by the profession in this country and especially over the "vocational" stage within which clinical education is supposed to fall. This "vocational" stage was contrasted with the "academic" stage by the Ontario Committee on Legal Education in 1971 and has been accepted as defining the roles of the professional bodies and the law schools despite the committee's own approval of clinical experience for law students.

The second factor may be the greater willingness of the institutions in the USA to cooperate in clinical ventures. This encompasses both the professions and the judiciary. To sit in court and hear a judge ask a litigant whether he would like to be advised by a law student is a shock to the American system of any English lawyer. The same cooperative spirit is shown by the American bar associations. This is in sharp contrast to the very restrictive attitude of the English professional bodies exemplified by the Law Society's evidence to the recent Royal Commission on Legal Services (the Benson Commission) which sought to restrict representation before tribunals (traditionally a "lay" area) to qualified lawyers.

It is remarkable that so few moves towards clinical education have been made

The third factor is the difference between the English and American law schools. The latter is all geared up, possibly with more mature and confident students. There is greater student pressure after five or six years of higher education to be actively involved. There are also much closer links between the local profession and the professors on the faculty.

Despite these factors it is still remarkable that so few moves towards clinical education have been made. Is this to do with the English law schools' vision of themselves as providing a liberal education within the ethos of a university, leaving the "vocational" stages to the profession? Unfortunately it is not at all clear that this distinction between "academic" and "vocational" holds up when legal education in

England is considered. The "vocational" law school presents its students with large amounts of legal doctrine and close attention to the analysis and application of rules is very self-contained within its economic functions of the role that is imposed.

Similarly the "vocational" stage is all too often a parody of itself, the cramming of details with examination through rote repetition. Supervised professional training along American lines is a far cry from this.

The development of clinical programmes has been accepted as one of the major innovations in legal education in the common law world with American law schools such as Georgetown spending little on such courses. Indeed the American Bar Association has produced a recent working paper on the competency of lawyers coming out of law schools.

An English law teacher would expect to pick up the recent legal education report on legal education. One of the central issues in legal education is the common law world is ignored completely. Indeed for a law teacher hoping for some initiatives with regard to law school curriculum, for sensitive understanding of the difficulties in the relationship between the law school and the profession and some suggestions as to how to solve them, this report is of little value. Its only recommendations are that law schools should consider social welfare and community law.

The need for initiatives in legal education in this country are obvious. The clinical approach is one that could receive significantly more professional and institutional support. It is not a solution for law schools' ills but it won't make them worse. Other common law countries have far outstripped it. It is a serious indictment of this chapter of the report that it has failed even to recognise, let alone discuss, an approach that has made such a mark in other common law countries. Only support from such quarters as this commission can, I suspect, provide the necessary impetus to make clinical legal education an accepted part of the English law school scene.

The author is a law lecturer at Kent University.

The acceptable face of Iran under the Ayatollah

from page 10

campus was frequently raided by the police or army. The latter, indeed, mounted a permanent armed guard at every university. You could not even enter the campus without their permission.

During the past twenty-five years hundreds of students have been arrested, tortured and killed. Here is one example. On December 7, 1953 the army entered the Faculty of Technology at the University of Tehran to arrest some students who were protesting against the Shah's rule. A Professor Shamsi was produced. He was threatened with immediate death. The students boycotted lectures and held a protest meeting. The meeting was broken up by the army and three students were shot dead: Mustapha Bono, Sharif Razavi.

In 1963, with the Savak in control, some prominent scholars were arrested. A year later, a military tribunal meted out their sentences: Professor Mohd Rezaei, 10 years' confinement; Ayatollah Taleghani, 10 years; Professor Sahab, 10 years; Professor Shamsi, 10 years; and a student, Mahmoud Ali Bahai, six years.

The proceedings of this tribunal were held in the utmost secrecy. The official statement issued, no charges read out against the accused and no legal basis for the verdicts explained. Contemporary Western disquiet at the immediate post-revolution trials of Savak and army chiefs had caused bitter amusement to Iranians who remember those earlier tribunals.

Many students who left Iran to study in Europe and the United States took the opportunity to protest about the conditions at home in comparative safety. They were still under the surveillance of the Savak, however, who checked them before they departed and kept detailed files at the various embassies. Students were still physically harassed and threatened. Their passports could be revoked or not renewed. In 1963 the Iranian embassy in Austria withdrew the passports of eleven student leaders. The Swiss Government served deportation orders on Ali Shakeri and Mehdi Shamsi, who were studying at the University of Lausanne, because the Iranian embassy refused to renew their passports. Such action could threaten the students' studies, their careers, even their lives. Suspect students also faced difficulties in obtaining foreign exchange permits from the Government, and could be left with no money. Academics who chose to work abroad were not free from pressure. They were accused of disloyalty, of having opted out of opposing the Shah's plan for "modernization". Every visit home was a journey to the unknown, during which they might face interrogation, delay or detention.

Some students and teachers were saved from the worst excesses of the Shah's repression by moral support and publicity provided by international figures and organizations. Bertrand Russell spoke out in the Rights of Man protested to the United Nations Secretary-General in 1963. "Hundreds of prominent professors and students of Tehran University, which has been closed, are in prison without trial." This followed country-wide demonstrations in support of Khomeini who had protested against Iran's growing capitulation to America. Khomeini was arrested and later exiled.

From 1971 the Shah's tactics became more subtle. He began to appear on television, to give the guise of reaction to "terrorist attacks". Three brothers and a sister from the Mazah family died. Badshahzadeh (the Shah's nephew) was killed. A prominent author and editor, Dr. Shamsi, was shot dead on the street, 1978. Vafa Hajebi, a woman lecturer at Tabriz, was imprisoned and tortured. Homa Natefi, a woman lecturer at Tehran, was arrested and beaten up. Ezzat Zadeh, a prominent author and editor of the Writers' Association of Iran, was repeatedly arrested and imprisoned despite his democratic and liberal views. He was a member of the National Consultative Assembly and a member of the National Consultative Assembly. The author is a lecturer in the Department of Persian at the University of Edinburgh.

1973. They were released to appear on television on the understanding that they would admit their guilt. In the middle of the programme they suddenly began making accusations against the Shah. The next day they were summarily executed. The present seizure of the American embassy must be seen in the context of these events. To Western eyes, it seems rash and irresponsible; to Iranians it is a small answer to the many insults, degradations and crimes suffered under the Shah with his American backing. Iran is still in a state of flux, a natural reaction after such an upheaval. But the revolution has already benefited the universities. They have gained autonomy, and principals and Deans are now elected. Student representatives can now take part in administrative and faculty meetings. A lecturer who teaches his subject freely; opposition can be aired openly and, for the first time, creative discussion and differing viewpoints are published daily. The Government encourages free speech. On February 28, all university teachers and intellectuals, regardless of their political opinions, were invited to enrol their names for future round-table discussions on radio and television. Many diverse subjects and problems will be aired. There is a sense of unity among students and scholars and a deep will to help the country. Now it is their country; not a possession of the Shah and alien powers.

The attitudes and opinions of present-day undergraduates and parents of university students are crucial to this debate. And it was with this in mind that a research project was devised by the present author and two colleagues presenting the views of 700 undergraduate students, over 1,000 parents of students and approximately 2,000 individuals, selected from the general public (the results are shortly to be published by the Institute of Economic Affairs in a monograph by A. Lewis, C. T. Sandford and M. Thorne). The project was designed to explore the preferences and the present-day questions on the questionnaire, 71 students replied in their own words offering general comments about the present grant system and alternatives to it. Some 152 parents of students supplied us with unsolicited comments on the same subject in the form of notes and letters accompanying their questionnaires returned through the mail. This kind of data is bound to vary in quality but the evidence of this sort paints a more intimate (and sometimes more comprehensive) picture of the feelings and experiences of those at the sharp end.

The outgunning impression from these responses was of the widespread criticism of the present means-tested grant scheme from among students, almost 50 per cent of the comments were of this kind, and there was a clear divide between academic life and society. Many scientists are theoreticians, who are now called on to apply their energies to solving the country's practical problems. Under the Shah, for example, Iran's agriculture gradually declined. Peasants left the villages, food production dropped and foreign imports became necessary. The Government has now urged the various university departments of agriculture to help reverse this decline. Khomeini's republic has a bad press abroad, mainly because he is not in tune with Western tastes and interests. News reports tend to concentrate on the difficulties and suggest that the Islamic republic is a step backward for Iran. But if we regard freedom of speech and thought as the basis of democracy then the new republic has rather taken Iran many steps forward. Khomeini has managed to unite the Iranian people and has brought a solidarity and pride unknown since the time of Mousaddegh. Finally, the Islamic republic of Iran attempts to find its own identity and gain the cultural and economic independence without which a democratic system cannot function and is meaningless.

There were also criticisms of the grant scheme, complexity and cumbersome aspects of the present grant scheme. The method by

Alan Lewis reveals some of the findings of the research project which he and two colleagues have just completed

Where do you stand in the grants versus loans debate?

The recent comments by Dr Rhodes Boyson made in the House of Commons that a loans scheme for students "is under consideration" has legitimized such a scheme as a serious policy option. The salience of the student loan scheme lobby is further enhanced by the pertinence of public expenditure cuts which are likely to incur wounds as well as amputations in higher education services.

Given that cuts will ensue, would a reduction in the Government's commitment to subsidizing the maintenance costs of university students have undesirable consequences? The answer is not a simple one. It would depend on what kind of loan scheme it was. Would, for instance, students be expected to pay back their loan at a competitive rate of interest or just at a sufficient level to recoup the real cost of the initial loan? Would the repayments be income contingent in the present government's terms, or would they be based on the student's earnings after completing their studies under the loan scheme would be obliged to repay it more rapidly?

If indeed it was convincingly shown that a loans scheme, of whatever form, had some advantages over the present grant system (and what scheme does not? The present means-tested grant scheme, as we shall review later, is certainly not innocent in this respect) could these be as great as those expected by other changes which could provide economies of this magnitude?

The attitudes and opinions of present-day undergraduates and parents of university students are crucial to this debate. And it was with this in mind that a research project was devised by the present author and two colleagues presenting the views of 700 undergraduate students, over 1,000 parents of students and approximately 2,000 individuals, selected from the general public (the results are shortly to be published by the Institute of Economic Affairs in a monograph by A. Lewis, C. T. Sandford and M. Thorne). The project was designed to explore the preferences and the present-day questions on the questionnaire, 71 students replied in their own words offering general comments about the present grant system and alternatives to it. Some 152 parents of students supplied us with unsolicited comments on the same subject in the form of notes and letters accompanying their questionnaires returned through the mail. This kind of data is bound to vary in quality but the evidence of this sort paints a more intimate (and sometimes more comprehensive) picture of the feelings and experiences of those at the sharp end.

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which grants are allocated and the way parental contributions are assessed was called into question. The complaints procedure was unclear, it was argued and the procedure by which contributions were gauged on the preceding year's income was particularly unfair on those with fluctuating incomes.

Six expositions declared that the means-test underestimated the intrinsic value of students, saying that a university education should be viewed as a right and not a privilege. Presumably students holding these views would argue that a loan scheme would make a university education appear even more of a privilege.

Thirty per cent of the comments were by parents of students; were critical of the means test which suggested that they are not as dissatisfied with the system as their offspring. In fact almost 15 per cent of the students who supported the present grant scheme.

Many of the criticisms made by parents of the present grant scheme reiterated the complaints of students that substantial numbers of parents felt to make up their minds about the expenditure on their children's education. This problem could be solved, said some parents, by enforcing the parental contribution through the PAYE system. While such comments have generally referred to "other parents" an exception was a parent of an Exeter University student, a professional man earning in excess of £14,000, who freely admitted that with three children at university he was unable to make up even half of his contribution from income and as a consequence was left with no alternative but to dig reluctantly into his capital savings.

Parents stressed the irrationality, more so, of hypocrisy of a situation in which students having reached university age are more dependent on their parents. This dependence was particularly unfortunate in cases where the parents were divorced and antipathy may have arisen.

Other contributors thought it unreasonable that high fee-paying parents should have "to pay again" for their children's maintenance costs while at university; resentment was expressed that the contributions were not tax-deductible; there were special pleas from a self-employed businessman building up his own company; and one exasperated parent argued that, after all, he had saved the country money by sending his son to public school.

So all is not well with the present grant scheme, that much is agreed; but, what about alternatives to it? Constructive comments of this type were less common. But to be fair a number of respondents remarked that the proposals before them were a good deal of thought before they are implemented and felt unqualified to offer constructive suggestions themselves. Nonetheless 15 per cent of the comments from students and parents called for some form of loan scheme in support of some form of loan scheme.

Both parents and students extolled the virtues of a loans scheme, saying that it would encourage more success and responsible students and act as a good method of saving taxpayers' money. Some parents were furious with those who do not make full use of their opportunities in higher education, opportunities and privileges which others of an older generation, who left school early, never had.

One parent took as his text, accurately or inaccurately, a 10-year-old sermon given by the Bishop of London, that the universities were insufficiently selective, that troublemakers do not make the best use of their academic opportunities and that people should not be pushed and made unhappy by something which was not for them. The respondent felt that the financial commitment of the loan scheme would somehow remedy this. Other supporters of a loan

scheme outlined a series of quite specific qualifications. Several comments stressed the importance of flexibility in the repayment schedules, with repayment being income contingent. It was suggested that repayments might be made through the PAYE scheme. It was considered advisable, by one parent, that students should be required to stay in Britain for at least five years after graduation. Another envisaged the loan scheme as a useful way of financing students of average ability while the top scholars should also receive a full grant without a means test; if this was implemented the scheme would be justified to the taxpayers and the number of students of average ability and of little or no public benefit would be reduced.

Comments like these should be heard. Arthur Seldon, judging from the views he expressed in his recent *THESE* article *Radical Right vs Conservative Left: Is it time to take a determined stand?* (*THESE* January 25 1980)—the radical right is alive and kicking. Those academics who support the public expenditure cuts in the present government may still be sleeping soundly in their beds but they may soon be reaching for their megaphones as the cutbacks get closer to home and the argument for a student loan scheme becomes more vociferous. No one knows for sure how the scheme would affect the demand for undergraduate places and the differential effect this would have on degree courses. Presumably students would prove more reluctant to study subjects in favour of vocational subjects such as the applied sciences. Making universities more responsive to market forces would also require that courses were more closely allied to the needs of industry and the private sector. Academics should be more brought to these possibilities and if necessary prepare their defences.

As we have reviewed in connection with the views of parents and students the present means test has many weaknesses and those who are sceptical about the loans scheme should be cautious, before laying themselves open to attack. For example, in countries where a loans scheme has been introduced this has had no significant effect on the social class distribution of applicants and it will be remembered that the means test and the present university system has attracted approximately the same proportion of students from the homes of unskilled, semi-skilled manual workers and the subsistence level for the last twenty-five years, is between 5 per cent and 7 per cent of the student population.

The university social mobility train is running slow and late. The present system is equitable in the broadest sense. Many of the comments from parents of students in our survey complained of the financial burden placed on the middle classes and those in the "middle" income brackets by the present scheme. But this is too narrow a view, given that people who pay tax at the two lowest rates make up the bulk of the taxpayer public but receive a disproportionately low return in the form of university places. At its simplest the university places of the professional classes are subsidized by the rest.

This is true even where parents are required to make a substantial contribution to the price as it must be remembered the maintenance costs of keeping a student at university form only a part of the total cost of a university education and it is often where the proportion of the total costs are at their lowest, e.g. in medical schools, where the children of the professional classes are in their greatest concentration.

So should the market place be allowed to decide which children are to be educated? The answer is, of course, no. The challenge is, therefore, where do you stand now that the means test is looking too shaky to lean on?

The author is a lecturer in research methods at Bath University.

Great expectations

David Benton, Michael Gruneberg and Christopher Bacon on students' varying attitudes to employment

One of the major innovations in higher education in the past decade was the emergence of polytechnics as degree awarding institutions. One aim of the polytechnics was to meet society's demand for skilled people in industry and administration. Recently, we sampled the attitudes of employers and graduates of university and polytechnic graduates (*THESE*, January 4). It seemed that employers tended to think that university compared with polytechnic graduates were of a higher intellectual calibre, and were more socially competent. University compared with polytechnic students were viewed more frequently as sources of future management and now ideas, a vocational training was seen as relatively unimportant to the employing organization. This apparent unimportance of vocational training was particularly surprising.

We have followed up these findings by comparing the views of 316 university and 204 polytechnic students concerning their employment.

When asked to rate the importance of various occupations, reasons for entering higher education we found marked differences between the two types of student. Compared with polytechnic students these from universities thought their course was more likely to lead to a more interesting, better paid and more socially useful career. Polytechnic students were more likely to see vocational training as a means of earning money, while university students were more likely to see it as a means of gaining a better education. One possible explanation is related to the fact that we found that majority of polytechnic students would have entered university if they had been able to gain admission. Polytechnics

were chosen by students not so much because of positive reasons of career orientation, but as a second best university education; but as a second best university education, it was not seen as a means of gaining a better education. One possible explanation is related to the fact that we found that majority of polytechnic students would have entered university if they had been able to gain admission. Polytechnics

develop teaching programmes closely related and well integrated with the fields of professional employment.

The present findings cast some doubt about the success of this innovation. It seems that the very least that polytechnics have not been successful in the task of persuading employers that industrial organizations should be looking for evidence of a vocational orientation; their own students realise the perceived importance of such a training.

Dr Patrick Nuttgens has commented on the key role that polytechnics have in the reconstruction of higher education. As one of the main roles of universities has been the training of teachers and the setting of school leaving examinations, they have curriculum and attitudes to education which have been developed to a hierarchy of esteem among subjects, with the "liberal" and that practical people are employers. Our studies of both students and employers give support to these comments, neither of which is surprising. Graduate students thought that when looking for evidence of a vocational orientation, employers should be looking for evidence of a vocational training. Both students and employers saw university rather than polytechnic graduates as potential top management. Our first paper pointed to the self-perpetuating cycle of lower grade applicants becoming lower status graduates, giving the polytechnic less than its deserved reputation for vocational training, which therefore attracts lower grade applicants, and so on. A worrying possibility is that when polytechnics allow students and staff a second chance of higher education and vocational training, the result is that the status of vocationally oriented training is lowered.

The authors are members of the psychology department at University College, Swansea.

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Perhaps the most important expectation associated with the development of the polytechnics was that they would integrate, particularly in vocational education, Eric Robinson when he reviewed a decade of polytechnics (*THESE* December 12, 1979) commented that the polytechnics have made substantial and generally successful efforts to

The authors are members of the psychology department at University College, Swansea.



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Official or alternative

Health, Medicine and Mortality in the Sixteenth Century
edited by Charles Webster
Cambridge University Press, £18.50
ISBN 0 521 22643 0

History of medicine is a fairly young discipline in this country, long avoided as technical by the historians. Among its growing pains and the illnesses incident to youth, it has suffered from chronic conditions of antiquarianism (at the hands of retired physicians), whiggism (by those who divided history into geniuses before their time and lunatics behind theirs) and internalism, the latter-named professionals who attempted to establish medicine's intellectual content and lineage. That schema has the weakness of treating medical ideas as intellectual games, passing from generation to generation without ever producing the real animal of medical practice, a weakness that brought on an acute attack of sociology, in which it was proved that the animal did not need genes because it was explicable in terms of society, the ultimate history of the animal being clear that the intellectual historians, who had tried so hard not to become whigs, had become most dreadfully elitist. The reaction to this modernist *bona fide* was a form of "alternative" history that might be called the "social grudge school".

Webster is doing a great deal to bring a mature judgment to the subject, largely from the viewpoint of a social historian. Health, medicine and mortality (in England, it should be noted) are topics that by their nature preclude an internal or intellectual history of "official" medicine, because there was precious little intellectual novelty in English medicine at the time (if we piously exclude Linacre and Calaneo). It was all derivative, and Webster's essay in this book gives us some account of circumstances at one of the sources, Padua. "Official" medicine was available only to a very small proportion of the population, and its history is history of medicine or is a narrow sense: "alternative" medicine, whether astrological (discussed by Chapman), alchemical and Paracelsian (Webster), or folk medicine, served the bulk of the population, but has received less historical attention. Webster is trying to redress this imbalance. One result of this kind of study at the national level is an interesting relationship between forms of religion, national growth and economic and "alternative" medicine.

Another way to cut across the sects in the subject and to give it

the feel of sitting on a firmer base is to use the non-partisan quantitative method, already in use in French social history. The book bears evidence of strong editorial influence in the selection and presentation of material in graphical form, ideally suited, of course, to infant, epidemic and urban mortality (discussed by Slack, Schofield, Wrigley and Forbes) but perhaps not so necessary in the representation of the flow of venacular culture. The quantitative method is used to great effect in Pelling and Webster's account, based on a head-count in sample areas, of the different kinds of practitioner, from the quack to the qualified, and of their distribution, social and professional groupings and education.

As a social historian, Webster broadens the scope of medical history to include topics not necessarily concerned with medicine as such, the diet (Appleby), corruption in the administration of a lunatic asylum (Allridge) and demography. These are proper parts of a history of medicine, but as we can see from these chapters, each is in an early stage of its own development, and the interdisciplinary cross-fertilization which we hope to see are not evident. We do not yet know what the diet of the poor was in the sixteenth century, and still less what effect it had on child or epidemic mortality; we do not know whether epidemic, acute chronic diseases of the time are identifiable, and we have little idea of the efficacy of medicine, whether official, alternative or quack.

That several component parts of medical history viewed in this way are at a preliminary stage is not to deny the excellent academic standard of these contributions, or the importance of the historical purpose that brought them together in what amounts to a statement of intent in the social history of medicine. In such a programme we are beginning to learn what happened to the patient, hitherto almost forgotten in medical history. What happened to the patient also involves the equally ignored question of what the medical theory when the medical man entered upon a practical course of action in treating the patient. It is the point of interaction of precept and practice that can open up the historical study of the social historian and social history to the internalist.

R. K. French is Director of the Wellcome Unit for the History of Medicine, University of Cambridge.

Ubiquitous organisms

The Sulphate-reducing Bacteria
by J. R. Postgate
Cambridge University Press, £13.00
ISBN 0 521 22188 9

The sulphate-reducing bacteria must be among the least attractive forms of life. Whenever water becomes devoid of oxygen, as a result of too much organic matter or pollution, they thrive, generating a stink of hydrogen sulphide and a black mess of ferrous sulphide. Needless to say, they are a highly successful group and can be found almost everywhere. Early in the history of the earth, they may have been a dominant form of life; the major ecological niches of the present being the result of their activities.

Professor Postgate is one of the select group of microbiologists who have investigated these organisms for many years. His account of the sulphate-reducing bacteria is wide-ranging and authoritative, covering their classification, growth, biochemistry and ecology. Essentially, there are two genera, *Desulfobacter* and *Desulfococcus*, and the various species are fairly well characterized now that reliable methods of culture have been developed.

Their novel metabolic processes—they oxidize organic substrates and reduce sulphate to sulphide—have led to the use of sulphate-reducing bacteria in the subject of much investigation as they still show clear evolutionary links.

Living, in terms of the known metabolic reactions, the energy required to reduce sulphate exactly balances the energy obtained from oxidation of organic acids. Perhaps the time has come to investigate chemosynthetic mechanisms for the formation of adenosine triphosphate (the universal energy carrier) in these organisms.

Meanwhile, they have proved to be a rich source of bizarre redox proteins and enzymes, for example, their hydrogenase, I was surprised to learn, is responsible for the electron transport they carry out in the iron pipes of circulating water systems. The economic significance of the sulphate-reducing bacteria lies in their nuisance value: they aggravate the effects of pollution and cause corrosion of structures. Much attention has been directed to methods of control. The simplest remedy is a liberal supply of oxygen, which they cannot tolerate; and for this reason, they cannot become serious pathogens in man. This could account for the fact that they have not attracted the attention of medical researchers. Nevertheless, this highly readable book succeeds in revealing the sulphate-reducing bacteria as a fascinating, if not attractive, group of organisms.

Richard Cammack is Lecturer in plant sciences at King's College, London.

BOOKS

Seaweed potential

Biology of Seaweeds: levels of organization
by A. R. O. Chapman
Edward Arnold, £5.35
ISBN 0 7131 2759 7

Seaweeds are rarely honoured with a book all to themselves. They are usually lumped in with their taxonomic cousins, the microscopic and freshwater algae, or their ecological neighbours, the intertidal animals. In these contexts they are often overshadowed these days because they are less convenient or less attractive subjects for the modern experimental biologist.

Several features of the biology of macroscopic green, brown and red algae are, however, unique among the plants and the potential of seaweed cultivation for waste treatment and energy production looks very exciting. Seaweeds fully deserve the modern specialist treatment offered by this book.

As implied by the subtitle, Dr Chapman discusses the biology of seaweeds at a series of levels of organization—the cell, the whole organism, the population and the community—and he is clearly determined to escape from the descriptive, systematic approach of so many algal texts and courses.

The first section deals with cell structure and cell function, but relatively little of the work discussed has been done with seaweeds, and the information is not uniquely relevant to them. Seaweeds cells are not, after all, substantially different from other plant cells, and the basic approach of the book seems least successful at this level of organization.

At the whole plant level, however, seaweeds have many unique features to offer. In this section, Dr Chapman gives a fascinating, if

somewhat tantalizing, account of these in chapters on thallus structure, physiology and reproduction. The many detailed references to original papers provide some compensation for the brevity of his discussion.

The final two sections on population and communities add new dimensions to the standard biology of algae. The population biology of plants is still in its infancy, but Dr Chapman describes some interesting examples of recent work with seaweeds which make a significant contribution to this field and which should provide stimulating ideas for student projects along similar lines.

The chapter on community structure contains a valuable assessment of the recent applications of quantitative ecological techniques to seaweed ecology, and the book ends with a strongly argued case for regarding interspecific competition, rather than the physiological tolerance of individual species, as the most casual factor of such zonation.

One major disappointment: this is only one reference to seaweed ecology. If readers want to obtain the full benefit from this directory text, such as it is, written by people who are experts in the field rather than by people who are experts at writing introductory texts, the authors should not be too modest about discussing their own contributions to the field. Enthusiasm and involvement will be more readily appreciated than a nice balance between all its aspects of a subject.

M. J. Dring

M. J. Dring is lecturer in botany at Queen's University, Belfast.

Atlas of rock-forming minerals in thin section

W S MacKenzie and C Guilford

This full colour handbook illustrates the appearance of common rock-forming minerals as seen in thin section under the polarizing microscope. It is designed to be used as a laboratory manual alongside the standard mineralogy texts. The book contains over 200 photomicrographs accompanied by short descriptions and summaries of the optical properties of the various minerals. The photographs are taken in either plane-polarized light or under crossed polars, and are carefully chosen to show the features by which the minerals can most easily be recognized.

Publication: March 1980
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Atlas of Flowering Plant Structure

J C Roland and F Roland

(Translated by Denis Baker)
This Atlas illustrates the many aspects of flowering plant structure through a unique mixture of line diagrams, light, micrographs and transmission and scanning electron micrographs, backed up by a clear and concise text. The authors consider the plant throughout its life cycle, from the seedling stage through to maturity, with flowering and fruiting, the production of seed and to complete the cycle—embryo development and seed germination. Throughout, the text relates the illustrated structures both to their physiological function, within the plant and, in a comparative way, to the evolutionary aspects of the development of plant form.

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Enigmatic, shadowy figure

Howard Florey: the making of a great scientist
by Gwyn Macfarlane
Oxford University Press, £7.95
ISBN 0 19 858161 0

Although Howard Florey has undoubtedly taken his place in the pantheon of great medical scientists, he has until now been an enigmatic, shadowy figure. Despite such achievements as a Nobel Prize, the Presidency of the Royal Society and a life peerage, Florey, even during his lifetime, was virtually unknown to the medical profession and general scientific community. Since his death in 1968 the only useful source of information has been Professor Edward Abraham's short biographical memoir published by the Royal Society in 1971. Happily we now have a very illuminating full-length biography by another former colleague of Florey's at Oxford.

A helpful introduction sketches the evolution of medical science in Britain, paying particular attention to the struggles of Acland, Hurdon Sanderson and others to establish the key departments of physiology and pathology at Oxford towards the end of the last century. Only a couple of decades were to elapse before the young Australian, Florey, arrived at Sherrington's laboratory in Oxford to take up a Rhodes Scholarship.

His Adelaide background is well described: the son of a prosperous shoemaker, who had emigrated from Oxfordshire, Florey—not surprisingly—had a brilliant school and university career. However, only one of his medical school teachers could be regarded as distinguished.

This was Archibald Watson, an anatomist, whose varied career had included spells as a pirate on the high seas and as an assistant and interpreter in the South Seas. Although Florey took part in some of his professor's more extraordinary escapades, the personalities of the two men were poles apart. Yet the reticent, rather withdrawn student was deeply influenced by the breadth of interests and fiercely independent mind of his teacher.

Highly revealing glimpses of Florey's thoughts and opinions are obtained from the turbulent correspondence with his future wife, and fellow doctor, Ethel Reed, which extended from 1920 to 1926. Florey's research career continued with remarkable consistency for more than 40 years despite fairly frequent moves (at least up to 1935) between Oxford, Cambridge, Philadelphia, Chicago, New York, London, Cambridge, Sheffield and Oxford again. The central theme of his life, and the boundaries between physiology and pathology, was the study of the major protective mechanisms of the body. These included the responses of blood vessels, lymphatics and the thymus gland, and the phenomenon of "inflammation". The secretion and function of gastro-intestinal mucus was a particular enthusiasm, stemming from his own chronic dyspepsia. It was this specific interest that led eventually to his crucial work on penicillin and other antibiotics.

The tangled story of Florey's rescue and development of penicillin began with his resurrection of

an earlier and equally forgotten discovery by Alexander Fleming, a lymyze. This antibacterial component of many types of cellular secretions was thoroughly investigated by Florey and various co-workers, notably Ernst Chain, who in 1938 then began a systematic study of other substances possessing activity against bacteria.

Penicillin was thus rediscovered for possibly the twelfth and certainly the last time. Professor Macfarlane's book dispels the numerous myths surrounding this subject and clearly explains why Florey alone received most of the credit for work that had been almost entirely carried out by Florey and his colleagues. Ironically, Florey himself was largely responsible for this confusion, as it was he who in 1942 drove away the pressmen, radio interviewers and photographers, all of whom were welcomed by Fleming 55 miles away.

The detailed biographical study ends in 1945, and a short epilogue lightly sketches in the remaining years of his life. Although 23 busy years still need to be filled in, the book has amply fulfilled the promise of its subtitle. We have been shown with remarkable clarity "the making of a great scientist" who was one of the most complex and paradoxical figures of our century.

Sidney Selwyn

Sidney Selwyn is professor of medical microbiology in the Westminster Medical School, London.

Import of resistant genes

Plasmids
by Paul Broda
W. H. Freeman, £5.90
ISBN 0 7167 1111 7

Work on bacterial plasmids, during the past twenty-five years, has been a major impact on the way we think of micro-organisms. Moreover, there is a real chance that it will also, in time, have an equally dramatic effect on the whole of biology, particularly on our understanding of the evolution of complex multicellular life forms.

Plasmids are genetic units which can survive in bacteria independently of the bacterial chromosome. They are often "infectious", that is they can be transferred between bacteria and establish themselves in strains or species which have not carried them before. And if the plasmid carries genetic information which leads to the expression of characters not already present in the recipient organisms, the situation is evolutionary potential may well have been created.

The information brought into bacteria by plasmids often seems to be unnecessary for the survival of the bacteria except in certain very restricted environmental conditions. Good examples of this are those

plasmids conveying resistance to antibiotics. They allow otherwise sensitive bacteria to grow in the presence of antibiotics to which the plasmids specify resistance, but in the absence of antibiotics the plasmids have little relevance for growth.

A particular point of interest is that genetic information of common ecological relevance tends to accumulate in individual plasmids. So antibiotic resistance plasmids commonly carry more than one distinct type of resistance gene, and this tends to reflect an ecological niche, such as a hospital, where widespread antibiotic use is prevalent. The characteristics of bacterial plasmids therefore allow us to see them clearly as potential vehicles of bacterial evolution, allowing blocks of pre-evolved genetic information to be acquired at a stroke. Plasmids have revolutionized our whole view of bacterial populations. No longer are they seen as relatively static genetic arrangements where variation is based on modulation of gene expression, but rather as highly flexible pools of genetic information.

Dr Paul Broda's book has documented our dawning awareness of the importance of plasmids in biology. There were many who said only a year or two ago that the whole subject of bacterial plasmids had become so massive, and the literature so voluminous, that it was impossible any longer for one person to write a book on this subject; and indeed most of the latest publications are collections of chapters contributed by experts under the guidance of an editor. Clearly, when Broda set out to write this book he must have been determined to write a book which would have succeeded very well indeed.

This is no heavy tome: the text amounts to only about 150 pages. But within this compass, he gives a succinct and informative account of many aspects of plasmid biology—in a molecular, environmental, medical and even commercial context. This is no book for the initiated. Its contents will be all but familiar with the field. There are few flights of fancy and there seem to be no really original insights. On the other hand, for those entering the field or for those who want to be informed about this aspect of modern microbiology, the book is first class. The views of the author are balanced and clear. The references are copious and well chosen. In short, Dr Broda's book must be recommended on his efforts.

Mark Richmond

Mark Richmond is professor of bacteriology in the University of Bristol Medical School.

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SERENGETI

Dynamics of an Ecosystem

The Serengeti National Park in Tanzania contains some of the largest herds of grazing mammals found anywhere in the world, making it an incomparable resource for the scientists who have contributed to 'Serengeti: Dynamics of an Ecosystem'. Starting in the 1950s and expanding in the 1960s, the group examined numerous biological aspects of the ecosystem in order to make recommendations for the area's conservation. This book synthesizes some aspects of the processes and patterns studied in this tropical savanna over the past twenty years; the emphasis is on the changes that have taken place and the development of ideas on how the system functions.

March 1980, 384 pages, 32 plates, £17.10p.

The Spotted Hyena: A Study of Predation & Social Behavior, by Hans Kruuk, now in paperback £9.30.

The University of Chicago Press

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Closing date: 16 April 1980

The position is funded by the Building Research Association of New Zealand. The holder will be responsible for the provision of an Acoustics Advisory Service to the New Zealand Building Industry. Applicants should have a first degree in science or engineering and a higher degree which includes a substantial acoustics component. Professional experience in acoustics, noise control, architectural acoustics or community noise is essential. Familiarity with real time data acquisition and control systems, and their application in acoustics laboratory measurements would be advantageous. The Research Fellow will have the status of a Senior Lecturer.

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(An Affiliated College of the University of Birmingham)

LECTURER IN SENIOR LECTURESHIP in History

Because of the secondment of a member of staff, applications are invited for the above post which is, for one year only, with some possibility of extension. The person appointed will teach and supervise research in the field of modern history, and will be responsible for the running of the college's history department. Only applicants with strong academic qualifications will be considered. Closing date for applications: 11th April, 1980.

Further particulars from The Principal's Secretary, Newman College, Bartley Green, Birmingham B32 3NT. Tel: 021-476 1131.

DELAFT
THE UNIVERSITY OF THE WEST INDIES—JAMAICA

ASSISTANT WORKS SUPERINTENDENT (Lecturer level) WORKS DEPARTMENT

Applications are invited for the post of Assistant Works Superintendent (Lecturer level) in the Works Department. The holder will be responsible for the supervision of the department's works, and will be required to undertake research and to supervise the research of senior students. The successful candidate will be expected to undertake research, and to supervise the research of senior students.

Further particulars from The Principal's Secretary, Newman College, Bartley Green, Birmingham B32 3NT. Tel: 021-476 1131.

BRISTOL
THE UNIVERSITY OF THE WEST INDIES—JAMAICA

ASSISTANT WORKS SUPERINTENDENT (Lecturer level) WORKS DEPARTMENT

Applications are invited for the post of Assistant Works Superintendent (Lecturer level) in the Works Department. The holder will be responsible for the supervision of the department's works, and will be required to undertake research and to supervise the research of senior students. The successful candidate will be expected to undertake research, and to supervise the research of senior students.

UNIVERSITY OF THE WEST INDIES—JAMAICA

Applications are invited for the following posts:—

1. **LECTURER/ASSISTANT LECTURER IN CHEMISTRY**. Applicants should be qualified Chemists or Chemical Engineers. Preference will be given to those with a higher degree in Chemistry, and to those with research experience in the field of Chemistry.

2. **LECTURER/ASSISTANT LECTURER IN RADIO BROADCASTING**. Applicants should be qualified in the field of Radio Broadcasting, and should have experience in the field of Radio Broadcasting.

3. **LECTURER/ASSISTANT LECTURER IN MASS COMMUNICATION**. Applicants should be qualified in the field of Mass Communication, and should have experience in the field of Mass Communication.

4. **LECTURER/ASSISTANT LECTURER IN TEACHING OF BIOLOGY**. Applicants should be qualified in the field of Biology, and should have experience in the field of Biology.

5. **LECTURER/ASSISTANT LECTURER IN DIPLOMA IN EDUCATION**. Applicants should be qualified in the field of Education, and should have experience in the field of Education.

6. **LECTURER/ASSISTANT LECTURER IN REGIONAL PRE-SCHOOL CHILD DEVELOPMENT PROJECT**. Applicants should be qualified in the field of Child Development, and should have experience in the field of Child Development.

7. **LECTURER/ASSISTANT LECTURER IN REGIONAL PRE-SCHOOL CHILD DEVELOPMENT PROJECT**. Applicants should be qualified in the field of Child Development, and should have experience in the field of Child Development.

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UNIVERSITY OF MANCHESTER

Chair in Social Administration

The University invites applications for a Chair in Social Administration. The holder will be responsible for the supervision of the department's work, and will be required to undertake research and to supervise the research of senior students. The successful candidate will be expected to undertake research, and to supervise the research of senior students.

Applications (one copy suitable for photocopying), with full details of qualifications and experience and the names and addresses of three persons to whom reference may be made, should be sent to the Registrar, The University of Manchester, Oxford Road, Manchester M13 9PL, from whom further particulars may be obtained. Please quote ref. 61/80/THES.

THE UNIVERSITY OF THE WEST INDIES—TRINIDAD

LECTURER IN STATISTICS

Applications are invited for the post of Lecturer in Statistics. The holder will be responsible for the supervision of the department's work, and will be required to undertake research and to supervise the research of senior students. The successful candidate will be expected to undertake research, and to supervise the research of senior students.

Further particulars from The Registrar, The University of the West Indies, St. Augustine, Trinidad.

THE UNIVERSITY OF THE WEST INDIES—TRINIDAD

LECTURER IN STATISTICS

Applications are invited for the post of Lecturer in Statistics. The holder will be responsible for the supervision of the department's work, and will be required to undertake research and to supervise the research of senior students. The successful candidate will be expected to undertake research, and to supervise the research of senior students.

Further particulars from The Registrar, The University of the West Indies, St. Augustine, Trinidad.

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Further particulars from The Registrar, The University of the West Indies, St. Augustine, Trinidad.

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THE UNIVERSITY OF THE WEST INDIES—TRINIDAD

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Universities continued

JAMAICA

Applications are invited for the following posts:—

(a) **LECTURER/ASSISTANT LECTURER IN MANAGEMENT STUDIES**. Applicants should be qualified in the field of Management Studies, and should have experience in the field of Management Studies.

(b) **LECTURER/ASSISTANT LECTURER IN BUSINESS POLICY** (as related to business). Applicants should be qualified in the field of Business Policy, and should have experience in the field of Business Policy.

(c) **LECTURER/ASSISTANT LECTURER IN PERSONAL MANAGEMENT AND INDUSTRIAL RELATIONS**. Applicants should be qualified in the field of Personal Management and Industrial Relations, and should have experience in the field of Personal Management and Industrial Relations.

(d) **LECTURER/ASSISTANT LECTURER IN QUALITATIVE ANALYSIS**. Applicants should be qualified in the field of Qualitative Analysis, and should have experience in the field of Qualitative Analysis.

(e) **LECTURER/ASSISTANT LECTURER IN QUANTITATIVE ANALYSIS**. Applicants should be qualified in the field of Quantitative Analysis, and should have experience in the field of Quantitative Analysis.

(f) **LECTURER/ASSISTANT LECTURER IN STATISTICS**. Applicants should be qualified in the field of Statistics, and should have experience in the field of Statistics.

(g) **LECTURER/ASSISTANT LECTURER IN ECONOMICS**. Applicants should be qualified in the field of Economics, and should have experience in the field of Economics.

(h) **LECTURER/ASSISTANT LECTURER IN POLITICAL SCIENCE**. Applicants should be qualified in the field of Political Science, and should have experience in the field of Political Science.

(i) **LECTURER/ASSISTANT LECTURER IN SOCIAL SCIENCE**. Applicants should be qualified in the field of Social Science, and should have experience in the field of Social Science.

(j) **LECTURER/ASSISTANT LECTURER IN HUMANITIES**. Applicants should be qualified in the field of Humanities, and should have experience in the field of Humanities.

(k) **LECTURER/ASSISTANT LECTURER IN ARTS**. Applicants should be qualified in the field of Arts, and should have experience in the field of Arts.

(l) **LECTURER/ASSISTANT LECTURER IN SCIENCE**. Applicants should be qualified in the field of Science, and should have experience in the field of Science.

(m) **LECTURER/ASSISTANT LECTURER IN TECHNOLOGY**. Applicants should be qualified in the field of Technology, and should have experience in the field of Technology.

(n) **LECTURER/ASSISTANT LECTURER IN EDUCATION**. Applicants should be qualified in the field of Education, and should have experience in the field of Education.

(o) **LECTURER/ASSISTANT LECTURER IN HEALTH SCIENCE**. Applicants should be qualified in the field of Health Science, and should have experience in the field of Health Science.

(p) **LECTURER/ASSISTANT LECTURER IN ENVIRONMENTAL SCIENCE**. Applicants should be qualified in the field of Environmental Science, and should have experience in the field of Environmental Science.

(q) **LECTURER/ASSISTANT LECTURER IN AGRICULTURE**. Applicants should be qualified in the field of Agriculture, and should have experience in the field of Agriculture.

(r) **LECTURER/ASSISTANT LECTURER IN FISHERIES**. Applicants should be qualified in the field of Fisheries, and should have experience in the field of Fisheries.

(s) **LECTURER/ASSISTANT LECTURER IN FORESTRY**. Applicants should be qualified in the field of Forestry, and should have experience in the field of Forestry.

(t) **LECTURER/ASSISTANT LECTURER IN MINING**. Applicants should be qualified in the field of Mining, and should have experience in the field of Mining.

(u) **LECTURER/ASSISTANT LECTURER IN METALLURGY**. Applicants should be qualified in the field of Metallurgy, and should have experience in the field of Metallurgy.

(v) **LECTURER/ASSISTANT LECTURER IN CHEMISTRY**. Applicants should be qualified in the field of Chemistry, and should have experience in the field of Chemistry.

(w) **LECTURER/ASSISTANT LECTURER IN PHYSICS**. Applicants should be qualified in the field of Physics, and should have experience in the field of Physics.

(x) **LECTURER/ASSISTANT LECTURER IN MATHEMATICS**. Applicants should be qualified in the field of Mathematics, and should have experience in the field of Mathematics.

(y) **LECTURER/ASSISTANT LECTURER IN ENGINEERING**. Applicants should be qualified in the field of Engineering, and should have experience in the field of Engineering.

(z) **LECTURER/ASSISTANT LECTURER IN ARCHITECTURE**. Applicants should be qualified in the field of Architecture, and should have experience in the field of Architecture.

(aa) **LECTURER/ASSISTANT LECTURER IN DESIGN**. Applicants should be qualified in the field of Design, and should have experience in the field of Design.

(ab) **LECTURER/ASSISTANT LECTURER IN FINE ARTS**. Applicants should be qualified in the field of Fine Arts, and should have experience in the field of Fine Arts.

(ac) **LECTURER/ASSISTANT LECTURER IN MUSIC**. Applicants should be qualified in the field of Music, and should have experience in the field of Music.

(ad) **LECTURER/ASSISTANT LECTURER IN DANCE**. Applicants should be qualified in the field of Dance, and should have experience in the field of Dance.

(ae) **LECTURER/ASSISTANT LECTURER IN THEATRE**. Applicants should be qualified in the field of Theatre, and should have experience in the field of Theatre.

(af) **LECTURER/ASSISTANT LECTURER IN FILM**. Applicants should be qualified in the field of Film, and should have experience in the field of Film.

(ag) **LECTURER/ASSISTANT LECTURER IN TELEVISION**. Applicants should be qualified in the field of Television, and should have experience in the field of Television.

(ah) **LECTURER/ASSISTANT LECTURER IN RADIO**. Applicants should be qualified in the field of Radio, and should have experience in the field of Radio.

(ai) **LECTURER/ASSISTANT LECTURER IN JOURNALISM**. Applicants should be qualified in the field of Journalism, and should have experience in the field of Journalism.

(aj) **LECTURER/ASSISTANT LECTURER IN PUBLIC RELATIONS**. Applicants should be qualified in the field of Public Relations, and should have experience in the field of Public Relations.

(ak) **LECTURER/ASSISTANT LECTURER IN MARKETING**. Applicants should be qualified in the field of Marketing, and should have experience in the field of Marketing.

(al) **LECTURER/ASSISTANT LECTURER IN HUMAN RESOURCES**. Applicants should be qualified in the field of Human Resources, and should have experience in the field of Human Resources.

(am) **LECTURER/ASSISTANT LECTURER IN ACCOUNTING**. Applicants should be qualified in the field of Accounting, and should have experience in the field of Accounting.

(an) **LECTURER/ASSISTANT LECTURER IN TAXATION**. Applicants should be qualified in the field of Taxation, and should have experience in the field of Taxation.

(ao) **LECTURER/ASSISTANT LECTURER IN FINANCE**. Applicants should be qualified in the field of Finance, and should have experience in the field of Finance.

UNIVERSITY OF THE WEST INDIES—TRINIDAD

Applications are invited for the following posts:—

(a) **LECTURER/ASSISTANT LECTURER IN MANAGEMENT STUDIES**. Applicants should be qualified in the field of Management Studies, and should have experience in the field of Management Studies.

(b) **LECTURER/ASSISTANT LECTURER IN BUSINESS POLICY** (as related to business). Applicants should be qualified in the field of Business Policy, and should have experience in the field of Business Policy.

(c) **LECTURER/ASSISTANT LECTURER IN PERSONAL MANAGEMENT AND INDUSTRIAL RELATIONS**. Applicants should be qualified in the field of Personal Management and Industrial Relations, and should have experience in the field of Personal Management and Industrial Relations.

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(n) **LECTURER/ASSISTANT LECTURER IN EDUCATION**. Applicants should be qualified in the field of Education, and should have experience in the field of Education.

(o) **LECTURER/ASSISTANT LECTURER IN HEALTH SCIENCE**. Applicants should be qualified in the field of Health Science

Colleges of Higher Education continued

NIHE

National Institute for Higher Education Dublin
Fóras Náisiúnta um Ardoidicéas Baile Átha Cliath

The National Institute for Higher Education, Dublin, the most recently established Higher Education Institution in Ireland, is now recruiting its first Academic Staff to participate in the establishment of its initial programmes, on which its first students will enroll in Autumn 1980.

Applications are invited for appointment to the following posts within the Faculty of Science:

Head of School of Biological Sciences

Head of School of Chemical Sciences

Lecturers in:

Biological Sciences

(Botany, Zoology, Microbiology, Biochemistry)

Chemical Sciences

(Physical, Inorganic, Organic, Analytical)

The first programme to be developed within the Faculty of Science will be a Degree Course in Analytical Science. Further substantive course developments are anticipated and research programmes of a substantial nature will be promoted and developed.

QUALIFICATIONS: Candidates will be highly qualified academically, preferably holding a higher degree or professional qualification, with considerable industrial, business and academic or research experience at an advanced level.

Considerable importance will be attached to the teaching and research abilities of candidates.

SALARIES: Appointment as Head of School may be at Principal Lecturer or Senior Lecturer level. The appropriate salary scales (effective 1/3/1980) are as follows:

Principal Lecturer: £11,744 - £13,458
Senior Lecturer: £9,776 - £12,226
Lecturer: £8,613 - £11,216

REVISED SALARIES

The above salary scales are under review and are expected to attract significant increases. Details will be available to applicants.

CLOSING DATE:

16th April, 1980.

Application Forms and further details are available from: Personnel Office, National Institute for Higher Education, 1 Lower Grand Canal Street, Dublin 2, Ireland. Telephone: Dublin 763175.

Candidates who have responded to previous general advertisements need not re-apply as their applications will automatically receive consideration.

NIHE

National Institute for Higher Education Dublin
Fóras Náisiúnta um Ardoidicéas Baile Átha Cliath

Applications are invited for appointment to the following posts within the School of Communications:

Lecturer in Social Psychology

Lecturer in Linguistics/Socio-linguistics

Lecturer in Media Sociology

Lecturer in Media Sociology

Lecturer in Media Sociology

Lecturer in Media Sociology

Lecturer in Media Sociology

Lecturer in Media Sociology

Lecturer in Media Sociology

Lecturer in Media Sociology

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Lecturer in Media Sociology

Lecturer in Media Sociology

Lecturer in Media Sociology



APPOINTMENT OF LECTURERS, GRADE II

Applications are invited from well-qualified graduates or graduate equivalents for the following posts in this Church of England Voluntary College of Higher Education (1,700 men and women). The appointments will be made from 1st September, 1980. The College, which was formed in 1975 through the amalgamation of The College, Ripon, with St. John's College, York, offers courses leading to the following Collegiate awards of the University of Leeds: BA/BSc (Hons and Ord) degree BEd (Hons) degree, Diploma in Higher Education, Post-Graduate Certificate in Education, the post-experience Certificate in Applied Social Studies, the Diploma in Special Education and the Certificate in Education for Teachers of Nurses. The College also offers courses leading to the award of the Diploma of the British Association of Occupational Therapists. The appointments will be at the appropriate point on the Lecturer, Grade II, Scale (£4,808-£7,686—under review).

DEPARTMENT OF DRAMA, FILM AND TELEVISION, HUMAN MOVEMENT STUDIES AND MUSIC Film and Television

The person appointed will be required to cooperate in the teaching of courses concerned with the theory and practice of visual communication. A proven ability to teach aspects of this subject is essential; recent practical experience of professional television production, or a similarly relevant area of experience, is highly desirable.

Human Movement Studies

(Temporary one-year appointment to replace a member of staff on secondment.)

The person appointed is likely to be responsible for gymnastics and to contribute to athletics and games studies.

DEPARTMENT OF GEOGRAPHY

Applicants should have a principal interest in Human Geography coupled with Western Europe and/or the USSR.

DEPARTMENT OF HISTORICAL STUDIES

(Two appointments)

One appointment will require experience in modern European and British history from the mid-18th Century with a specialism in Victorian Britain and/or local history in this period. For the other appointment, some of the following interests need to be available: American History or American Studies, Imperial and/or Post-Imperial history.

DEPARTMENT OF LANGUAGE AND LITERATURE

(Two appointments)

Candidates should be well-qualified graduates in English, with clearly defined areas of special interest. They should also be able to contribute to the teaching of a wide range of English or American literature courses.

Further details of all the above posts and application forms may be obtained from the Principal, The College of Ripon and York St John, Lord Mayor's Walk, York YO1 7EX, to whom completed application forms should be returned to arrive not later than MONDAY, 21st APRIL, 1980.

SOUTH GLAMORGAN COUNTY COUNCIL SOUTH GLAMORGAN INSTITUTE OF HIGHER EDUCATION (CARDIFF)

FACULTY OF EDUCATION

PHYSICAL EDUCATION DEPARTMENT

APPOINTMENT OF TWO LECTURERS

GRADE 2

RE-ADVERTISEMENT

Applications are invited from suitably qualified persons for the following teaching appointments, to be made from 1st September, 1980:

TWO LECTURERS GRADE II: PHYSICAL EDUCATION

Applicants should be graduates with specialist physical education qualifications. The possession of a relevant honours degree in physical education is essential. Applicants will be required to teach in the B.A. (Hons) Human Movement Studies Degree Course and also to supervise appropriate qualifications and experience in at least two of the following areas of study: Sports Psychology; Philosophy of Human Movement; Coaching; and the Sociology of Sport, Leisure and Recreation.

Also, an appreciation of a very high level of personal performance and teaching/coaching will be required in the practical areas of: track, cross-country, games and outdoor pursuits.

Salary Scale: Lecturer Grade II—£4,808 to £7,686 p.a.

Applicants should send further particulars may be obtained from the Personnel Office, South Glamorgan Institute of Higher Education, Cynffig, Cardiff, CF9 6XZ, and should be returned within 14 days of the date of this advertisement.

THE NATIONAL INSTITUTE FOR HIGHER EDUCATION LIMERICK, IRELAND

INDUSTRIAL CHEMISTRY

LECTURER/ASSISTANT LECTURER

New Degree and Postgraduate Courses in Industrial Chemistry have commenced in response to accelerating growth in industry in Ireland. A vacancy exists for a Lecturer/Assistant Lecturer.

Applicants should be graduates with a record of research and/or experience in industry which utilizes a chemical process. Applicants will be required to have expertise from a wide range of areas related to Industrial Chemistry, are eligible for example Chemical Process Engineering, Petrochemicals, Industrial Inorganic/organic, etc. Candidates should have a strong desire to teach and to participate in research and should be prepared to liaise with industry in connection with student training programmes and applied research.

Salary Scale: Lecturer £8,613-£11,217 p.a.

Assistant Lecturer £6,790-£8,426 p.a.

Applicants should send further particulars may be obtained from the Personnel Office, The National Institute for Higher Education, Limerick, Ireland, and should be completed and returned by Friday, 25th April, 1980.



College of St. Mark & St. John

PRINCIPAL LECTURER PROFESSIONAL STUDIES LEADER (SECONDARY)

The main function of this post is to lead the College in reviewing and re-orienting its secondary professional studies work at in-service and pre-service levels in the light of the contemporary curriculum debate. We are looking for a person who has held a post of senior responsibility in secondary schools and has experience of curriculum development in schools.

PRINCIPAL LECTURER COURSE LEADER B.ED FOR SERVING TEACHERS (CNAA)

We are looking for a person who will be able to contribute to the experience of CNAA course administration to lead this innovative course. Expertise in the field of primary education is preferred and a qualification in curriculum studies would be an advantage. The person appointed will teach in other programmes as appropriate.

LECTURER II/ SENIOR LECTURER IN PRIMARY MATHEMATICS

We are looking for a person who will be able to contribute to professional courses in mathematics in in-service and initial programmes. The ability to relate to serving teachers is essential, and substantial experience in a primary school is highly desirable.

SALARY SCALE:

L11 £4,808-£7,686 Under Review.

S.L. £7,686-£9,571 Under Review.

P.L. £9,571-£12,226 Under Review.

Written details of these posts are available by telephoning the Principal's Secretary (0752 777188). Candidates should send a letter of application, a curriculum vitae and the names and addresses of two referees as soon as possible to the Principal, College of St. Mark and St. John, Bedford Road, Plymouth, PL4 8PH.

Colleges and Departments of Art

COLAISTE NAISIUNTA EALAINIS DEARTHÁ

The Board of the National College of Art and Design invites applications for the post of

Director

The Director is responsible to the Board for the overall administration of the College, which was founded in 1748 and is an institution of Higher Education, teaching to Degree level.

The Board has recently received an undertaking that the Government will provide new and permanent accommodation for the College appropriate to its fulfilling its role as the National College of Art and Design.

The Director now to be appointed must have proven administrative and other relevant experience and qualification. The post is permanent and pensionable. The salary will be in the scale £12,474 to £14,520 (with the proposed Devlin Review addition).

Applications should be received not later than May 9, 1980. Further particulars may be obtained from:

Mrs M.C. Gibbons,
Secretary to the Board,
The National College of Art and Design,
Kildare Street,
Dublin 2.
Telephone: 682911.

DEVON

DEPARTMENT OF ART AND DESIGN

Principal, Dartmouth College, Massachusetts, U.S.A.

Principal, Dartmouth College, Massachusetts, U.S.A.

Principal, Dartmouth College, Massachusetts, U.S.A.

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Colleges of Education

Rolle College Exmouth

Principal

Applications are invited from suitably qualified candidates for this post which becomes vacant on the retirement of the present Principal on 31st August, 1981. The Authority wishes to make an appointment with effect from 1st May, 1981, allowing a one-term overlap. The College offers B.Ed./C.Ed. (Hons) and B.A. courses validated by the University of Exeter, and the successful candidate will be expected to have the qualities of academic leadership necessary to sustain and develop the College's work. Salary scale: within the range for Group 5 Colleges (£12,777-£13,431), currently under review.

Application forms and further particulars are available from: Chief Education Officer (BR1), County Hall, Exeter, EX2 4QG. Closing date for receipt of applications: Wednesday, May 7th, 1980.

DEVON

TRINITY AND ALL SAINTS' COLLEGE

(Affiliated with the University of Leeds)

Trinity and All Saints' College, an independent institution affiliated with the University of Leeds, provides studies leading to B.A. (Classics), B.Sc. (Classics) and B.Ed. Ordinary and Honours Degrees of the University.

Applications are invited for the following posts:

LECTURER/SENIOR LECTURER IN MANAGEMENT STUDIES

Applicants should be graduates with industrial and/or research experience and, preferably, should be prepared to lecture to honours degree level in at least one of the following areas: Management Information Systems; Corporate Policy; Organization Theory; Marketing.

PART-TIME LECTURER IN MANAGEMENT STUDIES FOR THE SESSION 1980/81

Applicants should be good honours graduates with an interest in the field of the Geography of Development with special reference to Latin America and the EEC. Salary Scale: Lecturer II, £4,470-£7,145; Senior Lecturer, £6,597-£8,253.

Further particulars and application forms, which should be returned by Tuesday, April 8th, 1980, are obtainable from: The Registrar, Trinity and All Saints' College, Brownbarrie Lane, Horsforth, LEIDS LS18 5SD.

Research Posts

BEDFORD

THE COLLEGE

DEPARTMENT OF HISTORY

RESEARCH ASSISTANT

Applicants should be graduates with a degree in history and a strong interest in the study of the history of the British Isles. The post is for one year, from September 1980 to August 1981, and is part-time, involving approximately 15 hours per week. The salary is £4,470 p.a. plus £1,100 for travel and other expenses. Applications should be sent to the Principal, Bedford College, University of Leeds, Leeds LS2 9JT.

LONDON

THE LONDON HOSPITAL MEDICAL COLLEGE

(University of London)

RESEARCH PSYCHOLOGIST

"SEX-ROLE LEARNING IN ADOLESCENCE"

A psychologist is required for a project of sex-role learning in adolescence. The project will be financed by the Social Science Research Council. The project will be for one year, from September 1980 to August 1981, and is part-time, involving approximately 15 hours per week. The salary is £4,470 p.a. plus £1,100 for travel and other expenses. Applications should be sent to the Principal, Bedford College, University of Leeds, Leeds LS2 9JT.

LIVERPOOL

THE UNIVERSITY

DEPARTMENT OF ELECTRICAL ENGINEERING AND ELECTRONICS

RESEARCH ASSISTANT

Applicants should be graduates with a degree in electrical engineering and a strong interest in the study of the history of the British Isles. The post is for one year, from September 1980 to August 1981, and is part-time, involving approximately 15 hours per week. The salary is £4,470 p.a. plus £1,100 for travel and other expenses. Applications should be sent to the Principal, Bedford College, University of Leeds, Leeds LS2 9JT.

OXFORD

THE UNIVERSITY

DEPARTMENT OF HISTORY

RESEARCH ASSISTANT

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RESEARCH ASSISTANT

LONDON SEI

POLYTECHNIC

DEPARTMENT OF EDUCATIONAL AND PSYCHOLOGICAL STUDIES

RESEARCH ASSISTANT

Applicants should be graduates with a degree in education and a strong interest in the study of the history of the British Isles. The post is for one year, from September 1980 to August 1981, and is part-time, involving approximately 15 hours per week. The salary is £4,470 p.a. plus £1,100 for travel and other expenses. Applications should be sent to the Principal, Bedford College, University of Leeds, Leeds LS2 9JT.

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Personal

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POSTAL CODE

of Yes Minister will under-
stand why the DES uses such
sophisticated acronyms and euphemisms.
Some will still use the word
Trends in Higher Education,
but this goes from a recent
version of it: "from 1969 the
relationship between QLR and
has been falling, and it is
assumed to remain constant or
falling. QLR would in fact pro-
duce the APR". What does a
little more of that:
"In fact, there are 'caps' all
over the pool, and we've stopped
the pool" passing outside the
common educational collapse.
It does at least indicate
that the psychology
of DES thinking on polytechnic
entry has been determined by
the financial gutter. But
it will, with pooling arrange-
ments, be nothing.

Whatever credit Anthony Crosland deserves for launching the polytechnics, it should be remembered that he was also the Secretary of State who readily handed over education to local authority corporate planners and finance chiefs. In accepting Dick Crossman's proposal to abolish specific education grants, he ensured that educational decisions would be taken on narrow criteria of "efficiency" and budgetary considerations.

There are signs that the DES, and a growing number of councillors, are beginning to appreciate the pitfalls ahead if they pursue their present courses. The tide of opinion in the department is beginning to turn in favour of setting up a national body to oversee the financing of the polytechnics. Let us hope that it will become a flood.

The author is MP for Rinn.

English are naturally pleased that a good number of students take up the opportunity to read for a "pure" English degree—"traditional" as the modish sneers once labelled it—but the availability of Modern Languages and Literature in Translation options preserves a healthy plurality.

Lunch, with some colleagues and the curator of our charming local museum, is a feast of wardens and

Mike Walters

Mike Walters

